THE BRISTOL

Medico-Chirurgical Journal.

JUNE, 1887.

PERIPHERAL NEURITIS.

Read before the Bristol Medico-Chirurgical Society

BY

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By the term Peripheral or Multiple Neuritis is meant an inflammation of the nerve-trunks after their exit from the cranial and intervertebral foramina. I propose to confine myself to those cases only in which many nerve-trunks are invaded progressively, and to the varieties of this large group of diseases of which I have here some instances. Excluding, then, altogether cases of neuritis limited to single nerves, such as optic and facial neuritis, the diseases grouped together under the title of peripheral or multiple neuritis arise from many different causes; and it is possible that many of them will be found to be essentially distinct affections. It is only quite lately that these diseases have been separated from the longer known affections of the cerebro-

spinal system, with which they were formerly confounded; although one variety, "alcoholic neuritis," was described by Lettsom in 1789, under the title of "History of Some of the Effects of Hard Drinking;" while one of Graves's clinical lectures deals with the diseases of the nervous system arising in the extremities and spreading towards the centre, and in it is described a remarkable epidemic witnessed by him in Paris in 1840, and evidently an epidemic of peripheral neuritis. Still, it has not been generally recognised until recently that there are diseases of the nervous system which begin in the periphery, with successive invasion of many nerve-trunks, and spread towards the centre; and the paralyses due to diphtheria and lead-poisoning respectively were the first to be recognised as of this nature, and to suggest the existence of cases presenting the same or similar symptoms, but due to other causes.

As to the pathology of the affection, two kinds of neuritis are known—a parenchymatous and an interstitial: the former probably simply degenerative, consisting of disintegration and absorption of the myelin of the medullary sheath, and breaking up of the axis-cylinder; the latter (interstitial) consisting of inflammatory changes in the endo- and peri-neurium, with formation of much new connective tissue pressing upon and so destroying the true nerve-substance. Gambault, by inducing chronic lead-poisoning in pigs, produced a parenchymatous neuritis in which a segment lying between two nodes of Ranvier is diseased, while the segments on the other side of these nodes remain healthy; and in two cases of alcoholic paralysis this condition was found to exist by Drs. Dreschfeld and Grainger Stewart.

Hadden, Eichhorst, and other observers have found

the change to be an interstitial neuritis. There was great increase of connective tissue around and between the bundles of nerve-fibrils, which were deficient in number, and more or less disorganised, apparently from pressure.

Ross states that Gambault has found in alcoholic paralysis proliferation of the nuclei of the endoneurium and sheath of Schwann at a certain level of the diseased nerve, while the medullary sheaths and axis-cylinders were simply attenuated, probably from compression. Below this level the changes were those of the ordinary Wallerian degeneration. It is, therefore, possible that at a certain level of the nerve a perineuritis may be observed cutting off the fibres below from their trophic centres, so that the latter undergo the usual descending degeneration.

Varieties.—Peripheral neuritis may be due (1) to the mineral poisons of lead, arsenic, and copper; (2) to alcohol and the fumes of bisulphide of carbon—a neuritis of this variety occurs in some cases of diabetes; (3) to animal poisons of syphilis, diphtheria, typhoid, typhus, and the other specific fevers. Ross has recently reported a case occurring after rheumatic fever, and Dr. Chapin, of New York, one or two cases of apparently malarial origin. The disease known in Japan as *kakké* or *beri-beri* seems to be a variety of multiple neuritis, and the lesions of anæsthetic leprosy are due to it. Finally, there are several cases reported of so-called idiopathic neuritis, perhaps arising from exposure to cold. The disease seems to affect tubercular subjects more than others.

Symptoms.—Cases of acute or subacute multiple neuritis are often preceded by sensations of pins and needles, tingling or numbness in the toes and fingers. Dr. Allen Starr, of New York, thinks that the disease may stop here, and that the sensations so commonly complained of

by women at the climacteric, of tingling with slight loss of power in the fingers, are due to neuritis. Vague rheumatic pains or cramps may occur. The onset is generally insidious, but there is occasionally slight fever. The numbness and deadness spread gradually up the extremities, and in a few days the patient may find that he has lost all power in his feet and hands. In all forms of peripheral neuritis, except that due to lead-poisoning, there are generally lancinating pains through the limbs, and sensations of burning, sometimes of great severity, and worse at night. As in other diseases in which the exciting cause is a poison circulating in the blood, the neuritis tends to involve both sides of the body symmetrically, though there are often considerable differences in the gravity of the symptoms on the two sides. In severe cases the paralysis may spread from the muscles of the extremities to those of the trunk, and even of the face and eyes; and death may occur from implication of the vagus, causing interference with respiration and swallowing. But in the great majority of cases the paralysis does not spread beyond the limbs; sooner or later the climax is reached, and recovery begins. This recovery may be so rapid as to make it seem doubtful whether any organic lesion has occurred, or so slow that the probability of complete restoration of function seems small. The paralysis is always of the atrophic variety—the muscles emaciate and soften, rapidly waste, and become flaccid. The cutaneous reflexes are absent in the limbs involved, the cremasteric and abdominal appear to be often exaggerated. The deep reflexes give valuable information as to the nature of the paralysis, especially the knee-jerk. This has been found to be absent in all the recent cases reported of alcoholic, diphtheritic, and other forms of peripheral neuritis affecting the legs. In one case reported

by Oppenheimer, in which recovery took place in three months, the knee-jerk was found exaggerated at the onset before it finally disappeared; and in other cases, notably one of multiple neuritis from lead, the patellar tendon was found to be exaggerated by Ross, who states, that though absence of the knee-jerk is a valuable sign of peripheral neuritis, it is not absolutely conclusive, and must be taken together with the other symptoms. Now, though for the proper performance of the knee-jerk it is necessary that the reflex arc be intact, it has been almost certainly shown that the knee-jerk is not a reflex action, but due to sudden tension of the muscle exciting the end-plates of the muscular nerves.* Since peripheral neuritis begins at the endings of the nerves, before there is actual paralysis of these, I think that we should expect an antecedent stage of abnormal irritability; if the patient were then examined the knee-jerk would be found exaggerated, but afterwards would disappear, as in the observation of Oppenheimer quoted above. As I have had three cases of diphtheria under my care lately, I took the opportunity to investigate this point. In the first, the knee-jerk was decidedly exaggerated about ten days after the onset of the disease, when the patient complained of tingling, &c., in the feet; it then gradually became weaker and weaker, until it finally disappeared about ten days later, when there was well-marked paralysis of the feet and legs. In the second, the knee-jerk was exaggerated twelve days before its final disappearance with the onset of paralysis, and it disappeared in the same gradual manner. It is important to note that the front-tap contraction—a very delicate test of abnormal irritability of the calf muscles—

* Weir Mitchell, and Lewis of New York, and Lombard, *Int. Journ. Med. Sciences;* Gowers' *Diseases of Nervous System*, &c.

was present in both at the same time as the exaggerated knee-jerk. The cutaneous reflexes were present, but the patients were children, in whom they are always more readily obtained than in adults; so that one could not say they were increased. In the second case, I thought I detected ankle-clonus, slight and of brief duration, but still well marked, on one day at the same period—*i.e.* about ten days from the beginning of the disease, and twelve from complete disappearance of knee-jerk. Later, the front-tap contraction and plantar reflex disappeared with the knee-jerk. In the third case, the knee-jerk appeared to be somewhat exaggerated throughout, and there was no paralysis or subsequent disappearance of it. These cases then, so far as they go, are in favour of the view advanced above; and since most cases of multiple neuritis come under notice when the paralysis is well marked, the absence of knee-jerk will be almost invariably observed.*

The electrical reactions give conclusive evidence of the nature of the disease in most cases. Faradaic irritability is either greatly reduced or entirely lost, while the muscles react forcibly to a weak constant current; in other words, the R. D. is present. In most cases Faradaic irritability is simply lowered, not abolished, while the Galvanic test gives the degenerative reaction; but it is necessary to be aware that in some cases the irritability to both Faradaic and constant currents is simply lowered.†

* Since the above was written, Drs. Ad. Strümpell and Möbius have reported two cases of peripheral neuritis in which there was exaggeration of tendon reflexes, this exaggeration gradually disappearing as the patients improved. They had previously observed that the tendon reflexes of the arms were increased in a case of lead-palsy, and attribute the phenomenon to increased excitability of the afferent muscle-nerves

† Ross, *British Medical Journal*, January 1st, 1887.

Though the distribution of the paralysis varies according to the cause of the disease, predominance of paralysis of extensors is a diagnostic point. This extensor paralysis gives rise to wrist- and ankle-drop. The consequence of ankle-drop is approximation of the origins and insertions of the calf muscles, so that the foot is maintained in a position of talipes equinus or equino-varus; and in a case of alcoholic paralysis of Dr. Buzzard's the muscles of the calf became so contracted that the patient could not bring the heel to the ground, though he could still walk with difficulty. If the patient sits with his knees bent at a right angle and the soles of his feet resting flat on the floor, paralysis of extensors of ankle and toes will at once be detected by his inability to bend the foot up to an angle with the floor without moving the heel. In the arm, from the same excess of paralysis of extensors and shortening of distances between the insertions of flexors, the forearm is bent at an acute angle with the arm, the flexion of the wrist still further increased, and the fingers bent in towards the palm, from the unopposed action of flexors; a condition which it is necessary to distinguish from active spasm of the flexor muscles. Into the various deformities produced in this way I cannot enter. There is often hyperæsthesia of the skin in the early stages, which generally gives place later on to more or less anæsthesia, with retardation of sensory conduction and loss of tactile sensation. Tenderness and apparent enlargement of nerve-trunks affected may be made out. It is important to observe that in some cases there is no pain throughout, and that affection of sensation may be absent or so slightly marked as to be with difficulty elicited.

Vaso-motor disturbances generally in the form of

hyperidrosis and trophic troubles in the shape of glossy skin, bullous and herpetic eruptions, are sometimes present; local asphyxia and even gangrene of the limbs have been noticed (Lancereaux and Myrtle, quoted by Ross). Bed-sores have been reported in two cases only; incontinence of urine and fæces are practically unknown, and ophthalmoplegia interna and externa absent except in diphtheritic cases.

The forms of neuritis due to lead-poisoning and to diphtheria are too well known to require description. The following case, however, illustrates how very slight the degree of throat affection may be in diphtheria, and yet be followed by paralysis: moreover, in this case the paralysis, after affecting the palate and larynx, passed to the legs, at an interval of over three months, and did not affect the eyes or any other muscles; in the legs the paralysis exhibited the typical symptoms of a mild peripheral neuritis, affecting both feet:

The patient was a young man, æt. 22, of robust appearance, who had always been healthy and temperate, and had never had syphilis. He complained of numbness and tingling in toes and feet, and loss of power in feet and legs, felt especially in walking. Close questioning brought out that he had had "quinsy" nearly four months ago, was not confined to bed by it, and—in answer to a leading question—that shortly afterwards he lost his voice, and that fluids ran out of his nose when drinking for two or three days afterwards. He was then quite well until three days ago, when present illness began. He walked with the peculiar gait described below, closely watched his feet when walking, and at once stumbled if he tried to walk with his eyes shut, but did not feel giddy.*

* In the figures the degree of anæsthesia, as tested by wire-brush and interrupted current of varying strength, is indicated by the degree of shading: absolute blackness meaning complete loss of sensation.

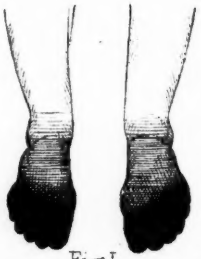

Fig I

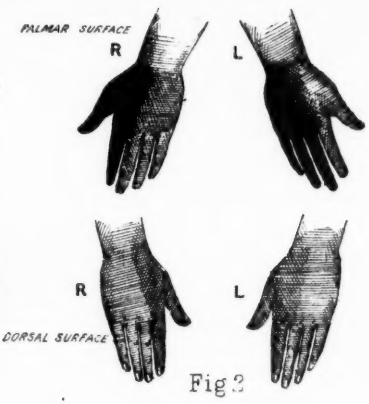

Fig 2

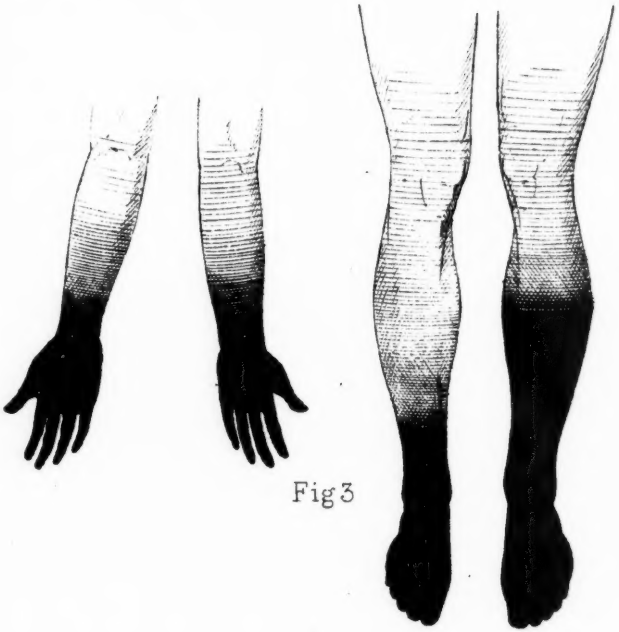

Fig 3

There was great loss of sensation over the feet and ankles, becoming complete over the toes. Loss of sensation to pain was more marked than the loss to touch. Fig. I. shows the extent of the anæsthesia. There was double ankle-drop, not quite so complete on left side as on right. Placed sitting in a chair with the feet flat on the floor, he was unable to elevate the toes from the ground. The big toe on each side curved down towards the sole. The knee-jerks and plantar reflexes were absent. Cremasteric and abdominal well marked.

R. D. obtained—no reaction at all to interrupted Faradaic current—for common extensor of toes and proper extensor of big toe on each side. There was diminished reaction to interrupted, increased to constant current for the other muscles of the leg. The thigh muscles reacted normally. Complete recovery took place in a little over six weeks.

Alcoholic neuritis occurs more often in women than men; it seems to be especially produced by drinking inferior spirits and liqueurs. The lower extremities are generally first paralysed; the paralysis begins with a double ankle-drop, and the extensor of the big toe is involved as frequently as the common extensor and peronei. This gives a curving down of the big toe into the sole, which was noted in the preceding case of diphtheritic paralysis, and is a characteristic of the ankle-drop of peripheral neuritis, contrasting markedly with the hyper-extension of the big toe in spastic paraplegia. The paralysis in these cases often remains limited to the legs, but in many the extensors of the forearm are affected. The muscles next involved in order are the quadriceps extensor of the thigh, triceps, muscles of calf, flexors of forearm, small muscles of hand and foot. If

her left arm, which was swollen, bright scarlet, and very painful. She was told she had inflammation of the nerves, and recovered after having been freely bled. She now complained chiefly of intense and agonising burning and shooting pains in the arms, with loss of power in arms and hands. The illness began two months previously with tingling and numbness in fingers, beginning in right thumb; there was gradually increasing weakness, purple patches appeared over the fingers, and large blisters over the hands and arms. On examination there was double wrist-drop, with almost complete loss of power in the hands and forearms; there was slight power of flexion, but none of extension. She could not raise her arms above her head. The hands and fingers were swollen, the skin œdematous and covered with large bullæ, and hyperæsthetic; there appeared to be also deep muscular tenderness—the Faradaic current caused too much pain to be borne, but the muscles of the forearms and hands acted more readily than normal to weak Galvanic currents; the tendon-reflexes were increased. The muscles appeared wasted, especially those of the left arm and forearm, and showed occasional fibrillar tremblings. Paralysis of the small muscles of hands was also complete. The lungs were emphysematous—there was a faint mitral systolic murmur; the other organs were normal. She complained much of loss of sleep from the pain. She was ordered arsenic and quinine, and the arms wrapped in cotton-wool and kept at rest.

On September 10th the skin over hands and forearms was glossy, with an erythematous eruption, but no bullæ. There was some slight return of power, and the pains had ceased; the muscles were tender, but there was loss of sensation over the skin of hands and wrists. (See Fig. II.)

She was now recommended to rub the arms with ol. morrh., and was given a mixture containing iron and quinine, strychnine and iodide of potassium.

In October, a weak constant current was passed through the arms daily. She now gradually improved; the pains occurred at times, but became much less; the loss of sensation improved. She gradually regained power over the muscles. On November 19th, the skin, which had peeled completely over the forearms and hands, had returned to its normal appearance; sensation was normal. She could perform most of the muscular actions of fingers and arms, but there was still considerable weakness, especially on the right side; wasting was less apparent. The muscles of arms and forearms reacted only to strong Faradaic currents—muscles of left limb and hands requiring strongest; the muscles of right thumb and both little fingers reacted with a long latent period, and a slow sustained contraction, that seemed to pass as a slowly-moving wave over the muscle, resembling the contraction of an involuntary muscle-fibre. R. D. still obtained in right thumb and little finger, but nowhere else. A C C greater than K C C with ten Leclanché cells in these muscles.

She was now treated with stronger constant current passed through both arms, and individual Faradaic stimulation of special muscles. On February 14th, note was made that strength, range of movements, sensation, and electrical reactions were natural; so that the patient was ill eight months before recovery took place. The case illustrates well the extreme pain and severe lesions of skin that may occur: the former attack, apparently of neuritis, in her girlhood, is of interest.

In the following case there was paralysis of feet and hands, both motion and sensation; recovery taking place

in three and half months from onset. The patient was a healthy woman, æt. 45, with a good family history. She had brought up a large family of healthy children, and had never suffered from rheumatism, gout, syphilis, or any other illness. She stated that she had an abscess in her breast one month previously; when that healed, the present illness began with tingling and feelings as of pins and needles in the calves, which four days afterwards also occurred in the hands. She had dull aching pains in the legs and numbness of the hands and feet. She now complained of total inability to walk, except a very short way with much difficulty, and of loss of power in the forearms and hands, with numbness and loss of sensation over legs and forearms, and of shortness of breath. She expressed herself as feeling that she had no feet when walking. She suffered no pain when at rest; and there had been neither lightning- nor girdle-pains, nor gastric crises. The tingling was passing off, and the loss of sensation becoming more marked. When she walked, she shuffled along with short steps, slowly and carefully, not taking her eyes off her feet, which she could not lift from the ground, being quite unable to walk upstairs. She could not walk in the dark without falling. She stood fairly steadily. She had lost all power of grasp, could not pick up anything from the table, nor fasten or unfasten the buttons of her jacket.

On examination, there was loss of sensation to pain and touch over forearms and legs. The distribution of the anæsthesia is indicated in Figure III.

There was double wrist-drop, deficient movement of fingers and loss of strength in forearms, and difficulty of raising hands to back of head. R.D. present in muscles of forearm and hand; former reacted, however, to very strong

Faradaic currents. Both feet were dropped; R.D. in muscles of both feet and legs. The quadriceps extensor acted only to very strong Faradaic currents. The muscles of calves and on front of legs were flaccid, flabby, and soft. In forearms these conditions were not so noticeable, except in muscles of thumbs and little fingers.

Reflexes: Bicipital and tricipital present; plantar, knee-jerk, absent. Front-tap contraction was obtained; abdominal reflexes present; no paralysis of muscles of trunk was observed. Skin normal. No swelling of feet. Organs examined and found normal. Micturition and defæcation normally performed.

Three weeks later, sensation was returning in feet, but not in hands, and there was some hyperæsthesia and pain in legs. The feet were still dropped, but less so, and she had gained in power in both hands and feet. Seven weeks later, she walked into my room very fairly, and had managed to walk a mile and a half to the Hospital without much discomfort. She could pick up and hold things; unbutton or button her jacket well. No wrist- or ankle-drop. She felt weak Faradaic current with brush everywhere, but least on palmar surface of fingers and soles of feet.

Reflexes: Superficial palmar exaggerated; knee-jerk present; no clonus or front-tap contraction; no rigidity, no wasting of muscles apparent. The muscles reacted fairly well to Faradaic current, but to a weaker one in right than left; they reacted in forearms to a constant current of 10 cells Leclanché, in legs to one of 20 cells. K C C was greater than A C C, and A O C than K O C.

Treatment consisted merely in daily frictions of the limbs with oil, and iodide of potassium, with strychnine and iron and quinine, given internally.

The points of interest in this case are, first, the rapid and complete recovery from severe paralysis in about three months from onset; and, secondly, the absence of any apparent cause of the illness. There was not the slightest reason to doubt her statement, that she had always been extremely temperate as regards alcohol.

The following is a brief account of a case of neuritis affecting the forearm and hand of one side only, coming on entirely without pain, and without any loss of sensation to ordinary methods of examination. The patient was a strong healthy-looking labourer, æt. 66, who had had syphilis, but no other illness. He had been much exposed to wet lately, and complained of loss of power in the hand; he found it out from being unable to button his coat or to hold anything. The elbow was flexed, there was partial wrist-drop, and the hand lay to the ulnar side, with fingers partly flexed. There was some loss of power in movements of elbow, and he found a difficulty in raising his arm above his head. He could only slightly flex, and could not extend, fingers at all. Flexion and extension of wrist very imperfect. The actions of intrinsic muscles of hand were lost. Sensation—tested by a hair lightly drawn over the surface, and by gentle pricks with two needles—appeared normal, both as to touch and pain, over forearm and hand; but on careful examination with wire-brush and weak Faradaic current, sensation was deficient on left side as compared with right. There was tenderness, with apparent enlargement of trunks, of median and ulnar nerves. R.D. muscles of hand; loss of reaction to Faradaic current for muscles of forearm.

It is enough to say that this man recovered in six weeks under the above treatment. The case illustrates well the preponderance of motor over sensory paralysis

that may exist. The tenderness and apparent swelling of affected nerve-trunks is interesting from their presence in a case of almost purely motor paralysis.

Now as to the localisation of the lesion in peripheral neuritis: from the presence of muscular atrophy, it must be situated either in the muscles themselves, in the nerves leading to them, or in the motor cells in the anterior horns. The presence of sensory disorders places the lesion in the nerves or in the grey matter of the cord. It has been argued that the lesion cannot be situated in the mixed nerves because, in some varieties, there is no affection of sensation throughout. I believe, however, that careful examination with delicate tests will in most cases detect some loss of sensation, though to rougher methods of examination this may have appeared normal; and it is well known that, in comparison with the motor disorder, a lesion of a mixed nerve may give rise to very trifling sensory disturbance. Secondly, Ross has pointed out that the lesion of the nerve frequently occurs below the point of origin of the sensory branch: for instance, the absence of sensory disturbance in lead-palsy is due to the fact that the musculo-spiral gives off its sensory fibres above the elbow as the radial nerve, and that lesion of the nerve occurs below the point of origin of the radial. Lastly, post-mortem examination in numerous cases has discovered a healthy spinal cord and changes in the nerves.

Acute anterior poliomyelitis presents clinically many points of resemblance to multiple neuritis, but is distinguished from it by the suddenness of its onset, and the far greater prominence of motor over sensory symptoms, while the sharp shooting pains and tenderness of nerve-trunks so often present in neuritis are absent. Atrophy

of muscles is common to both. In some cases of multiple neuritis, where the motor disturbance is rapid and severe, and unaccompanied by sensory disorder, it is impossible to make the diagnosis at first.

The opinion seems to be gaining acceptance that under the name of infantile paralysis are included two distinct classes of cases: the one, cases of anterior poliomyelitis; the other, cases of multiple neuritis. The latter include all the cases in which recovery is almost complete, even after paralysis and atrophy have lasted a long time; in the cases due to poliomyelitis, there is no recovery after the disease has lasted a short time. Dr. Chapin, of New York, has recently reported* cases of infantile paralysis in which there was wrist- and ankle-drop, with the other characteristic symptoms of multiple neuritis; and also a very instructive case, in a child, where both the cord and the nerves were found diseased. He states that infantile paralysis due to anterior poliomyelitis generally occurs below the age of five, and nearly always before nine, years; and lays stress on the sudden onset, regressive character of paralysis, with absence of pain, as opposed to the ascending progressive palsy due to neuritis. Chronic anterior poliomyelitis is distinguished by the absence of sensory disturbance, and the order in which the muscles are involved (*i.e.* in the ascending form, small muscles of hand before extensors of fingers and forearm; in the descending, gluteal muscles and those supplied by obturator and anterior crural nerves before extensors of legs).

Paralysis of physiologically related muscles has also been regarded as pathognomonic of poliomyelitis in contrast to paralysis of muscles supplied by one nerve in

* *Med. Record*, Jan., 1887.

neuritis; but it is doubtful whether this rule can be regarded as absolute, as cases of multiple neuritis have lately been published where the first condition obtained.

Cases of spinal meningitis, with pressure on, and destruction of, nerve-roots, may resemble multiple neuritis very closely. Severe shooting pains along the course of the nerves, loss of sensation, and paralysis with atrophy of muscles, are common to both; but in meningitis of this severity there is interference with micturition and defæcation, the loss of sensation is very irregularly distributed, and there are generally pains and stiffness in the back, hyperæsthesia, and girdle-pains.

From Landry's paralysis, acute cases of multiple neuritis will be distinguished by the absence of sensory disorders, muscular wasting, and the reaction of degeneration in the former.

In the diagnosis, it is important to remember in all cases that in patients suffering from multiple neuritis, any interference with the functions of the bladder or rectum is of extremely rare occurrence.

To tabes dorsalis, cases of widely distributed paralysis from multiple neuritis have considerable resemblance; and this derives especial interest from the fact that Pitres and Vaillard have shown that peripheral neuritis frequently occurs in this disease. They say that the distribution of the neuritis in cases of tabes varies widely, and bears no relation to the extent of the lesion in the cord; that it probably plays no part in the production of the specific symptoms of tabes—*e.g.* lightning-pains, absence of knee-jerk, inco-ordination; but that, on the other hand, the areas of cutaneous analgesia and anæsthesia, cutaneous trophic changes such as perforating ulcer, motor paralyses with or without muscular atrophy, spontaneous fractures

and arthropathies, and perhaps also visceral crises—symptoms all of which frequently occur in the victims of tabes—are due to peripheral neuritis.

Ross* lays stress on the gait in the diagnosis, which has been compared to that of a high-stepping horse, or of a dancing-master. The following is his explanation of it: Suppose that one foot has just been moved forwards and planted on the ground in front of the other; the body is now inclined to that side, and at the same time the heel of the foot in the rear is raised and the limb is ready to move forwards; the anterior muscles of this leg now contract, so that the toes are raised and clear the ground, and the leg now swings forward by its own weight like a pendulum, and not by any further muscular action. But in multiple neuritis, the anterior muscles of the leg are paralysed and unable to raise the toes; so that when the foot is raised the toes simply drop lower, and the heel must be unusually elevated to enable the foot to be moved forwards, thus exposing more of the sole to an observer from behind than is usual, and the necessary elevation of the toes is obtained by a further contraction of the muscles that flex the knee on the thigh and the thigh on the pelvis.

Of course, the general symptoms of the two diseases, such as eye-symptoms, course of the disease, &c., are widely different.

With regard to prognosis while the paralysis is still spreading, there is necessarily some anxiety lest it should involve the muscles of respiration; but Buzzard says that, even when this happens, most cases recover. The prognosis necessarily varies according to the cause of the disease in each individual case: it is best in diphtheritic cases, where death rarely occurs directly from paralysis;

* *Loc. cit.*

in alcoholic cases, according to most English observers, recovery generally takes place, but the patient, on regaining his liberty, almost invariably returns to his previous intemperate habits, and a relapse follows. According to French physicians, the prognosis is very grave in this form of the disease. It must be borne in mind that the patient is often at the lowest ebb of nutrition when he comes under treatment for paralysis.

In the forms of gouty or rheumatic, or in those classed above as idiopathic neuritis, recovery generally takes place after a longer or shorter period. In short, in all varieties of peripheral neuritis, the tendency is probably to recovery, provided that the cause of the disease can be removed. As to the time taken for recovery, that varies within wide limits, and of course depends in part on the extent to which degeneration in the muscles and nerves has taken place. The electrical reactions afford exact information, other things being equal, with regard to the interval that must elapse before restoration of function.

The treatment should consist of rest in the early stages, with measures for the relief of pain if severe. After the first stage, a weak constant current should be passed through the nerves in both directions. Mercurial inunction is useful in recent syphilitic cases. Iodide of potassium, in fairly large doses, should be given with tonics. Alcoholic stimulants are not generally desirable. When the paralysis has ceased to spread, a constant current, slowly made and broken, and just strong enough to cause contraction, should be passed daily through the affected muscles; daily frictions of the affected limbs are also of advantage. Later still, when recovery begins, Dr. Allen Starr thinks that the restoration of the normal passage of impulses through the nerves is hastened by passing an

interrupted current through them. The Faradaic current may be useful in the latest stages of slowly improving cases, when the muscles respond to it, but are still weak and wanting in tone; but it is doubtful whether it materially hastens recovery, and it is useless or injurious when applied to the muscles earlier. In cases where the anæsthesia is great, advantage is sometimes derived from daily stimulation of the skin of the affected parts by the Faradaic brush, as recommended by Duchenne. Arsenic and strychnine are very useful after the first stages. I think a mixture containing iodide of potassium and strychnine, with the citrate of iron and quinine, gives the best results.

ON RHINITIS.

BY

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Rhinitis is a common affection which causes much discomfort, so that it deserves more attention than is generally accorded to it. Acute rhinitis, or the common catarrh, is unfortunately known to all; but the cases I propose to refer to, and which come more under the province of the surgeon, are those in which there is some more or less permanent lesion of the structures of the nose, and which in many cases require mechanical treatment. These cases may be roughly subdivided into those of:

1. Irritable vascular hypertrophy of the mucous membrane.
2. Chronic fibroid thickening of the membrane.
3. Chronic catarrhal rhinitis.
4. Ulcerative rhinitis.
5. Polypoid rhinitis.
6. Arthritic and osteitic, combined with periosteitic rhinitis.
7. Tubercular rhinitis.
8. Lupoid rhinitis.

A large majority of these are caused by neglected colds; traumatisms; an unwholesome state of the atmosphere, depending either on the presence of chemically or mechani-

cally irritating agents, or germs; various constitutional conditions, notably struma and syphilis, sometimes gout and rheumatism. They are mainly kept up by changes of atmospheric conditions, injudicious diet, especially alcoholic excesses—and in these cases a very small quantity means excess; in some cases, lack of cleanliness, it may be meddlesome surgery, deformities of the parts, and other causes too numerous to mention.

In these cases the pathological change is principally confined to the lower or respiratory part of the nose; in some few instances the whole of the interior of the nose is affected. In the respiratory area, according to Panas, there is a greater development of sub-mucous tissue, which permits inflammatory infiltration more readily than the upper or olfactory part, in which the mucous membrane is thinner and more directly connected with the periosteum.

The first group of cases, those of irritable vascular hypertrophy, are not quite so common as the chronic hypertrophic. They occur chiefly in neurotic subjects. The lesion is characterised by an irritable, inflamed, almost abraded-looking, thickening of the turbinated bones and septum. The usual symptoms of nasal stenosis are present, accompanied by sneezing, irritable discharge, and one or more of the symptoms of reflex disturbance in the reflex area described by Morell Mackenzie; it may be, asthma, irritable cough, weak voice, or even bronchitis. Hay fever and allied disorders are liable to supervene on slight provocation. These cases should be treated by sedative remedies; soothing injections, such as warm boracic lotion, poppy-head lotion, bathing the nose externally with the same, gargling the throat; and after this is done, anointing the nose inside and out with some sedative

ointment—vaseline or lanolin, impregnated with cocaine, acetate of lead, belladonna, morphia, or eucalyptus. Powders I have found, as a rule, do more harm than good; they absorb a certain amount of the watery parts of the secretion, and the rest is left as dried cakes along the sides of the nose, and causes further irritation.

Chronic fibroid thickening, or chronic hypertrophic rhinitis, in many cases is characterised by the absence of other symptoms than nasal stenosis and mouth breathing; in others there may be symptoms referred to the pharynx, larynx, or bronchial tubes; but, as a rule, in this class the symptoms are anæsthetic, in contradistinction to the last class, in which hyperæsthesia is found. The patient complains of feeling stuffed up, and a special liability to catch cold. The swelling covering the turbinated bones and septum looks indolent, feels firm, is painless, and does not become congested when touched with a probe. For these cases I have found dilatation with bougies useful: this I believe promotes absorption of the inflammatory material. A solution of chromic acid, applied after the parts are well douched and dried, accelerates the cure.

I will quote one case.

H. N., æt. 33, a groom, for seven or eight years had complained of mouth breathing and a feeling of being stuffed up. He had consulted several medical men, one of whom had told him there was no polypus, and nothing much the matter; and another had ordered some snuff. I found that his nose was almost entirely obstructed; he could get a little air through with difficulty, and a small probe could hardly be passed along the floor of the nose. He was ordered injections, and, as he got better, snufflings of cold water. After the injection the nose was well dried, and then a solution of chromic acid, 10 grains to the

ounce, painted over the septum and turbinated bones. After a few weeks of this treatment with a tonic, and occasional catheterisations, he was practically cured. In this case there was no history of constitutional taint, but the mischief apparently arose from a series of colds.

The next class of case, chronic catarrhal rhinitis, is characterised by an increased secretion from the nose. In some instances the discharge is thin, and almost serous in character; in others, of thick inspissated mucus. In some instances there is a little thickening of the membrane, in others apparently atrophy, and also of the bones beneath. Some of the cases, if neglected, run into the next class, that of ulcerative rhinitis; but the catarrhal rhinitis proper presents no macroscopical ulceration. For this class of case powders are useful; but before being used, any thick mucus should be cleared away by alkaline injections. Among powders, Ferrier's snuff, and various combinations of boracic acid, or acacia with tannin, are especially useful. Iodoform, if there is any smell, may be added with advantage to the preceding snuffs.

Ulcerative rhinitis—sometimes the result of a long-continued catarrhal rhinitis, or traumatisms, or the lodgment of foreign bodies, sometimes of gonorrhœa or tuberculosis—is intensified by a strumous or syphilitic habit; and in some, indeed, no other cause can be found. To this class also belong cases of ozæna. All ulcerative cases are not accompanied by ozæna, and ozæna is not necessarily accompanied by ulceration. The worst cases of ozæna depend on a certain amount of caries of the bone; but others may be due simply to the accumulation and putrefaction of the secretions of the nose.

These cases are best treated by copious douches, and

ointment of some antiseptic material, of which I have found the following formula especially useful:

Iodoform, gr. x.
Ol. Eucalyptol, ʒ j.
Pulv. Acid. Boracic, ʒ j.
Ol. Sassafras Ethereal, ♏ x.
Vaseline ad. ℥ j.

A young man came under my care at the General Hospital, who stated that for years he had suffered from a discharge from his nose—this was not offensive; but he had anosmia, and also some loss of ordinary sensation. Two or three times during the day mucus accumulated, and he blew his nose to show me. From each nostril a mass of hard mucus was expelled, the size of a large filbert—a most sickening sight. The affection commenced with a cold, as he says, after an attack of measles followed by low fever. There was no history of syphilis or other marked constitutional affection. On examination the cavities of the nose were found large, the entrance of air free; but the mucous membrane in places was abraded and ulcerated, with that peculiar asthenic type of congestion seen sometimes surrounding ulcers of the leg. He had consulted several medical men for this complaint, all of whom had treated the matter lightly, but ordered him a powder and told him he would be all right.

Copious douches of warm water were prescribed, and a paint of chromic acid—10 gr. to ʒ j. water. A fortnight later he came, saying he had had a hæmorrhage from the nose. Since the last visit he had been using the paint, and his nose had been feeling more stuffy; the bleeding relieved this sensation. He was now ordered to continue

the injections, and to use an ointment of boracic acid, iodoform and eucalyptus. The condition rapidly improved, and he is now on the high road to recovery.

To this class also belong cases of snuffles in children with inherited syphilis; local as well as general treatment should be carried out.

Cases which I have called polypoid rhinitis are not infrequently seen. They apparently depend upon some chronic irritation, and are characterised by a general thickening of the membrane, which has the appearance of diffused mucous polypus. Some of these cases come under the class described by Morell Mackenzie as sessile polypi, and Schech as polypoid vegetations: the latter also states that it is very difficult to draw a hard and fast line between hypertrophies of the mucous membrane and real neoplasms. What I wish to call attention to is, the fact that a rhinitis exists differing from the hypertrophic in the lack of firmness, and from the irritable vascular rhinitis by the lack of vascularity and hyperæsthesia. It has somewhat the appearance presented by the synovial membrane in pulpy swellings of joints. This condition is rarely found over the whole surface, but is frequently combined with a congestive thickening of the rest of the membrane, and is best treated by scarification and removal of any particularly thickened parts. Careful after-treatment must be carried out; and here again chromic acid is useful, and in some cases astringent ointments or powders.

There is another class of cases due to thickening of the bone and periosteum or perichondrium, which, when not dependent on injury, are due to some constitutional taint, chiefly syphilis and struma. These cases are recognised with difficulty, until some serious mischief is

caused, when diagnosis is easy. Treatment should be carried out on general principles.

In old-standing cases of hypertrophic rhinitis, with a certain amount of thickening of the bone and periosteum, which does not subside after the treatment previously described, I have found a little oleate of mercury (10 p.c.), applied both to the interior and exterior of the nose, useful.

Tubercular or lupoid rhinitis is rare. I have not seen a well-marked case of the former; but at the present time a girl with lupoid rhinitis is under my care at the Hospital. In this case both alæ are destroyed, and the lining membrane is so thickened that the lumen is almost obliterated. The membrane presents the red tubercular appearance characteristic of lupus in other parts, and the treatment should be carried out on the same lines.

Professor Bosworth, in an interesting paper abstracted for another part of this journal, alludes to a condition which has not been previously described. He refers to bony thickenings along the sutural lines of the intra-nasal bones. This he considers is due, in the majority of cases, to traumatisms in early life, unrecognised and untreated, but which in time cause all the phenomena of reflex disturbance in the reflex area of the nose. Morell Mackenzie states that "Small exostoses can also often be perceived at the angle where the perpendicular plate of the ethmoid, the vomer and the cartilage of the septum meet one another." Professor Bosworth claims that by removing these bony growths he has cured a large number of cases of mouth breathing, asthma, hay fever, bronchitis, laryngitis, ear diseases, &c., &c. He is to be congratulated on these very favourable results.

I had occasion recently to remove a cartilaginous

growth from the right nostril of a boy. In this case the top of the nose and septum were displaced to the left, and a good deal of hypertrophic rhinitis existed behind the growth on the right side. The removal of the growth was followed by marked improvement of all these symptoms. Cartilaginous tumours of the nose are rare.

In conclusion, among other methods of examination, I do not see that attention has been called to the fact that valuable indications of the condition of the nose can often be obtained from an examination of the palate through the mouth.

Clinical Records.

ON A CASE OF PROGRESSIVE MUSCULAR ATROPHY: DEMONSTRATING THE NERVOUS ORIGIN AND NATURE OF THIS DISEASE, AND ITS AMENABILITY TO NERVINE TONICS.

By CHARLES WILLIAMS, L.R.C.P., L.R.C.S., L.S.A., District Medical Officer of the Bodmin Union, Admiralty Surgeon, &c.

In the month of April, 1883, J. B. M., by profession a mariner, and aged 48 years, came to me complaining of weakness in the left arm and pain in the fingers and thumb of the same side. As for the wrist, he told me me that it "felt exactly as if it were broken, and the fractured ends were grating one upon the other;" adding at the same time that he had "no strength in it all."

On examination of the affected limb, I found the interossei muscles and the thenar and hypothenar eminences unmistakably wasted, and also the same mischief—only more marked still—in the muscles of the forearm and the biceps. So greatly wasted, indeed, were these latter-named muscles, that, compared with their fellows on the other side, they felt quite soft and flabby. Moreover, whilst with the sound limb closure of the hand and flexion of the forearm on the arm would produce a feeling of firmness and resiliency, a similar movement with

the affected limb only served to demonstrate more palpably the serious damage its muscles had sustained.

Of course, the case was so clear that I could hardly make a mistake in diagnosis; but still, the malady being one not often met with in country practice, I deemed it wise, before definitely pronouncing an opinion, to investigate its history. If any doubt existed before, it was now speedily dispelled; for when to the characteristic symptoms he presented was added such a pathognomonic history as he now briefly, but afterwards so fully and graphically, detailed to me, how could I possibly remain any longer in uncertainty?

On my telling him what I feared his malady was, the serious nature of it, and how improbable the prospect of a complete recovery, he replied that he was not at all surprised, that he had himself feared it was something serious, for it had been coming on for such a long time; "in fact," said he, "ever since I was shipwrecked that time." And then, to my request for a detailed history of the whole case from the beginning, he furnished me with the following interesting narrative: "I am, as you know, a sea-captain, and in 1875, when I was out in rough weather in Bude Bay, my vessel collided with the rocks, and was completely wrecked. All the crew were almost at once taken off in the rocket apparatus; but, unfortunately, just as my turn came the apparatus broke down. What my exact feelings were at this juncture it would be impossible for me to describe. Suffice it to say that I was completely terror-stricken, lights seemed to flash before my eyes, and I gave up all hope of being saved. Once, I remember a wave struck me with such tremendous force, and threw me so violently on my back, that those on shore told me afterwards that they thought it was all over with me. I

regained my equilibrium, however, and for two hours, clothed in nothing but my drawers, made frantic endeavours to get into the apparatus. Ultimately, by a terrific jump—I hardly know now how I did it—I succeeded in getting one leg in. Directly those on shore saw that I had reached it they began to pull, and the consequence was that I was dragged almost the whole way under water. Just as I was nearing the land, the sea was so violent that it knocked me completely off the breeches* into the water; and had not the sailors jumped in and secured me that very instant, I should certainly have been drowned. From this moment I completely lost my senses, and the next thing I remember is finding myself in bed at a gentleman's house, whither I had been carried. At the end of three days I was brought home here in a closed conveyance. Of course the doctor was sent for immediately, and he continued to attend me for several months. I was as long as six weeks in bed, even; and during that time had most peculiar delusions. For instance, everything appeared to me as if topsy-turvy: my wife would look like a hand-spike, and several times I distinctly remember I fancied the house was going head over heels. These hallucinations, I may say, would not be constant, but would pass and come. In addition to all this, I remember, too, that I used to have dreadful pain in my head; and this, so far as I can recollect, was almost constant. About the treatment, I know that I had for many months to take strengthening medicine, and several times I remember I had injections.†

"After that I got fairly well, but still not myself by any

* The "breeches" is the term employed to designate that part of the apparatus in which the legs of a shipwrecked person are wont to be placed.

† It was evidently morphia that was injected; for it was done to relieve his intense pain, and he always slept, so he said, afterwards.

means. For instance, I was very nervous—could never trust myself, and so forth—and, besides this, I know I had, too, jerking pains in my arm. Owing to my being so very nervous, I remained at home for three or four years, and then only went to sea because I was obliged to. After seven or eight months, however, finding it wouldn't do, I came home again, and this time determined never to attempt it more. Whilst at home this second time I used to earn my livelihood by going out with the other men fishing; my most prominent symptoms the while being such as I have just stated.*

"I continued in this state, getting no better and becoming no worse; when one day, when I was out fishing, the boats were caught in a 'ground-sea,'† and the lives of myself and the other fishermen were for a time in great peril. Fortunately, however, the lifeboat was speedily got out, and we were all ultimately rescued. Although we escaped with nothing worse, apparently, than a severe wetting, yet this shock affected me, I know, not a little, for afterwards I got more nervous than ever.

"Such was my condition, with very little difference, till the spring of 1882, when news reached the village that the vessel which I had been to sea in last had foundered on the coast of Scotland. It was managed by two nephews of mine; and as from the report all hands seemed undoubtedly to be lost, I, as a near relative and a seafaring man besides, was deputed by the friends, in the absence of anyone else apparently so suitable, to proceed to the spot and try to identify and bring home the bodies of these two young men. I felt at the time that it was not at all the thing for me, and the result proved that my fears

* That is, nervousness, want of confidence, &c.

† More correctly, "ground-swell."

were well grounded." He then proceeded to give me the details of his mournful errand: how that, sad at heart and hardly knowing what he was doing, he started that afternoon from this out-of-the-way fishing village, and, after a tedious journey, extending from the afternoon of Tuesday to midnight on the following Thursday, he found himself in the town of Dundee. Arrived here, he discovered to his chagrin that a mistake had been made as to the locality, and that the wreck had occurred nowhere near here, but in the neighbourhood of the town of Aberdeen. Proceeding thither with as little delay as possible, he found himself a few hours later at the scene of the disaster. When the man came to this part of his narrative he was visibly affected, and when he had told me what he had to go through I was not surprised at it. Amongst other painful experiences, there was the recognition of the vessel with which he had so long been familiar as going gaily before the winds, now a complete wreck; and embedded in the sands. Then there was a visit to a mortuary, where, laid out on slabs, were the bodies of about a dozen drowned sailors, and over whom, just as he entered, the burial service was in solemn tones being read. The impression all this was likely to make upon him may be imagined. Now, however, came the worst part of all; for each face of these twelve men—cold and grim in death, and decomposed in some cases beyond any possible recognition—he had, so soon as the service was concluded, to carefully and deliberately scan. When to this is then added the fact that he had to come away from that "palace of the dead" without even the sad satisfaction of feeling that *his* dead were amongst them, some idea will have been gained of the terrible trial to which his nerves must have been subjected. Other painful episodes also

occurred, which I have here no space to mention; but the end of it all was, that he had to make his long return journey without the object of his mission having been accomplished. The results to himself, then, of this nerve-trial were, if my theory of his malady be correct, exactly as might have been expected; for, from that time forward his symptoms grew steadily, if not rapidly, worse, and, after a couple of years of slow but sure retrogression, he presented himself a patient at my surgery. What state he was in at that time has been already described, and his condition whilst under my care and inspection I will allude to presently. Here, for a moment, let me draw attention to the first point I want to lay stress upon in this article, and that is: that progressive muscular atrophy—the malady we are considering—has its origin, not, as some have supposed, in a disturbance of the muscular system, but undoubtedly and unmistakably in a disturbance of the nervous. I know, of course, that the primary lesion is now generally admitted to be of this nature; but still, for all that, even at the time of writing, I also know equally well that there are not a few who regard the whole thing, from beginning to end, much in the same light as they do the degeneration of a fatty heart. That I am quite correct in my assertion is evident from the fact that even to-day that designation of Duchenne's, "Atrophie musculaire avec transformation grasseuse," and other equally misleading appellations, still pass current amongst us. This erroneous nomenclature, however, there is no doubt is gradually becoming obsolete, and, as I have just intimated, the nervous hypothesis is the now generally accepted explanation of the matter. But, if this be so, how is it that more stress is not laid in medical text-books upon nervous shock as an exciting cause of the disease?

A priori, one would certainly expect this would be one of the most common of all. And yet in the only medical works to which I have had access—and one of them is one of the latest and most esteemed medical works that the last decade has produced—the occurrence is not so much as hinted at. Dr. Roberts—for this is the authority to whom I am alluding—in the sixth edition of his work on *The Theory and Practice of Medicine*, thus sums up the pathology and ætiology of this disease: "Wasting palsy (that is, progressive muscular atrophy) has been attributed pathologically to an atrophic and degenerative change beginning in the involved muscles themselves, in the anterior roots of the nerves supplying them, or in the spinal cord. The view which now seems to be generally held, is that the primary lesion consists in a gradual destruction of the motor nerve-cells of the anterior cornua of the cord, which some regard as due to a chronic inflammation, others to a degeneration, the muscles being secondarily affected. The chief supposed exciting causes are, exposure to cold and wet; a blow or fall on the neck or back, or traumatic injuries of peripheral parts; syphilis; excessive use, with consequent fatigue, of the affected muscles; acute fevers; and lead-poisoning." Now this work is admitted on all hands to be one of the best modern expositions of present-day medicine; and yet, with all modesty, may I be permitted to suggest that it would not detract in the least from the value of the work if in a future edition there was added after the first paragraph of the quotation given above, "*or in the brain;*" and after the last paragraph, "*nervous shock*"?

My justification for such a suggestion is to be found in the case I am now placing upon record; for, whatever the cause and wherever the mischief in other cases, in *this* I

am persuaded they are none other than intimated above. That is to say, whilst "nervous shock" was undoubtedly, as it seems to me, the exciting cause of the disease, "in the brain" would, I believe, be found the primary lesion. And upon anyone who has closely followed the history of this man's malady, so graphically related by him, the same conviction must, I think, be impressed. If, however, the mere recital of its commencement (in this connection note the hallucinations, &c., which were months anterior to anything noticeably wrong with the muscles) were not sufficient to convince, I would draw attention to the fresh impetus given the malady by his trying trip to Scotland; and also, only in a lesser degree, by the fright he suffered when the fishing boats were imperilled. Quite recently, too, he has suffered another relapse, equally suggestive; but this I will allude to again.*

Here let me leave this the first part of my subject, and proceed to the second. What, then, were the course and character of his symptoms whilst a patient under my care? Well, under the treatment adopted (the precise nature of this will be detailed further on; here I will only mention that it was both constitutional and topical) the man unmistakably improved. Whilst the muscles of the affected limb gradually regained a good deal of their original firmness, the improvement showed itself still further by the increased strength he got in it. Unfortunately, however, coincidently with this improvement in the left arm the malady attacked the right leg. Under the application of the same local treatment however, and a continuance with the medicine, after a time the leg improved also. When the leg was attacked, both the man and myself feared that

* *Vide* note on page 111.

the disease was going to invade the whole body, and our conversations on the subject went so far as to lead us to discuss the precise mode in which he would probably die. Our apprehensions, however, did not continue long; for, as the disease showed no signs of attacking the other leg and arm and the muscles of the trunk, it soon became evident to both patient and doctor that they could fairly congratulate themselves on the enemy having been routed.* With matters in this state, then, the local treatment was discontinued, and he did nothing but persevere with the medicine. After another twelve months, or about two years from the time of his first presenting himself at my surgery, he discontinued this too (at all events, its *regular* use), and, with a few slight relapses,† he has remained in much the same state ever since.

Such, then, is a brief *resumé* of the course of the malady locally. Now let me proceed to give more in detail a few of his general symptoms, or what should more correctly, perhaps, be called his "sensations." What, then, were these? Well, as will be seen, they were very peculiar. Strange to say, too, they seemed—or, at all events, some of them did—to be largely dependent upon the condition of the atmosphere. Thunder weather, for instance, used to affect him very strikingly.

* The disease was not cured, but arrested; in fact, the man is not *cured* even now.

† His last relapse was, however, rather a severe one. He was a candidate for the post of Attendance Officer under our local School Board. A member of that board myself, and having some influence with it, I went so far as to tell him that he could calculate upon obtaining the appointment. The result of a vote by ballot, however, showed that a rival had secured it. I told his wife at once that her husband would now be sure to have another relapse; and, surely enough, although the man by my direction made up his mind that he would not allow his disappointment to affect him, in a week or two afterwards my prognostications were verified.

Often and often he used to close the shutters and go to bed; and nearly always when this kind of weather was coming on he would come to, or send for, me. At such times, too, —but occasionally at other times as well—he would experience a sensation as if the house were going over, and the invariable result would be that he would fall down on his knees and catch hold of something. At other times, again,—and the symptoms about to be narrated would be apparently independent of atmospheric influences—his sensations would be "as if a live animal were in his shoulder-joint and gnawing away at the tissues." Again and again he has fancied—and *apropos* of this I am satisfied that this sensation was just like the others, namely, nervous,—that "whole armies of lice" were moving about his shoulder; and several times a day —once he assured me he did it as often as sixteen—he has stripped himself completely naked to find out whether it really were so or not. Almost similar sensations, too, he has had in the affected thigh. Thus, he would come complaining that the feeling was exactly as if a horsewhip had struck it, and he felt the tingling that follows; or sometimes it would be not this, but a feeling like a lot of spiders playing over it. Sometimes, again, the sensations would be painful. Thus, he would feel pain akin to what he fancied would be experienced if the bones were bending; or the feeling of spiders would be succeeded by a sharp twinge, just as if a sharp knife were suddenly plunged in; or, if it was not this, it was just as if a pistol-barrel had been applied to his leg and the bullet was passing through it. Then, again, in addition to his remarkable sensations, there were peculiar involuntary movements. Involuntary twitchings of the muscle, as might be guessed, were, of course, of almost continuous occurrence, but

occasionally they would be much more than this. Thus, sometimes when he would be sitting in a chair, without any warning, one leg would jump involuntarily over the other knee. I say "involuntarily," because he assured me that it was so, and because on one occasion I saw the phenomenon myself, and I know that I was not deceived.

Thus, I think it will have to be admitted that both his symptoms and sensations were peculiar in the extreme. So peculiar were they, indeed, and so numerous (for I have not related, I know, one half of them), that I fancy some of my readers will shake their heads when they read about them. Assuming this to be the case, let me anticipate all the objections that it seems to me can possibly arise out of a perusal of what has been recounted. If it be said that the man was not telling the truth, let me assure my readers that I know otherwise. I could always see it in his face and manner; and not only so, but what object could he have in deceiving me? If it is argued that some of his experiences were indicative of an over-indulgence in alcohol, my reply is that, for what he drank, he might almost be called a teetotaller. If it be urged that the man was, perhaps, failing mentally, my answer is that, on the other hand, he was most intelligent; and, beyond what I have related here, his actions were in no way eccentric. Then, lastly, if it be suggested that some of the symptoms were probably due, more or less, to the treatment adopted, I will only say that, whilst the local treatment was soon discontinued, the medicine that I commenced with was never changed; that when he was taking it, he always improved; and that when he was not, he always got worse. Thus all objections, so far as I can see, being anticipated and disposed of, what is the lesson

to be learnt from his case? None other, I take it, than this: that the disease in its origin and nature is essentially and unmistakably nervous. But, if I am correct and the disease be indeed nervous, then nervine treatment ought to effect an improvement. Well, so it did. Recognising the fact that the disease clearly showed absence of tone in the nervous system, it was not difficult to see that nervine tonics and not nervine sedatives were what were required. What, then, to bring the matter to a point, was the treatment adopted? Well, as has been mentioned, it was both internal and external. The internal consisted in administering a mixture of steel and strychnine, and the external in the local application to the affected muscles of the magneto-electric current. The medicine was taken uninterruptedly for as long as two years, while the local treatment was discontinued after about twelve months.* As to the part each played in the resulting improvement my own opinion is very decided, and that is, that while both combined helped to give the first check to the disease, the medicine alone has held it back since. Asked what ingredient in this mixture I attribute most virtue to, I should unhesitatingly answer that it was the strychnine. And yet, strange to say, this drug is dismissed as worthless in Dr. Tanner's discussion of this malady. He says, speaking of his treatment of this disease: "It may be instructive to mention *(sic)* that amongst the remedies which have certainly failed to do good we must place strychnine and nux vomica, setons, issues, or blisters over the vertebræ, and cold baths during the active stage." † He is probably right about the setons, &c., but

* Whilst it lasted, however, it was done almost daily, either by myself, my pupil, or both of us.

† *Vide* Dr. Tanner's *Practice of Medicine*, 7th edition, vol. 1, p. 477.

he is certainly in error about the strychnine. At all events, if he was not *then*, he is *now;* for this case proved, as clearly as the value of any medicine could be proved, the benefit derived from strychnine. Whilst in the beginning he persevered with it regularly, and under it slowly but surely made progress; afterwards, when better, he always used to come whenever there seemed to be a slight relapse, and a bottle or two of the mixture almost invariably pulled him together again.* Met by the suggestion that it was probably the steel as much as the strychnine that worked such good results, I have only to say that I have strong presumptive evidence to the contrary. It so happened that a few months ago he had one of his slight relapses, and came to me as usual for his "pick-me-up." Of course I gave it him, and when he had finished taking it he came again for a second, saying that he was much better, and he thought another bottle would put him all right. Now, it chanced that when he came the second time my stock of liquor strychnine was all but exhausted, and so I was only able to put in his bottle just half the quantity he always had had before. Of course I never thought anything more of it, but about a week afterwards he again presented himself at my surgery, and, almost immediately after he had entered the room, he made use of these (to me) very significant words: "I don't know how it is, but that last bottle did not do me so much good as the other." Without a doubt, then, we have in this drug, and probably in other nervine tonics as well, a remedy of proved value; and if any of my professional brethren should be confronted with a similar case, I trust, after what has been said, that it will

* The precise composition of the mixture was liq. ferri. perchlor. m. x to a dose, and liq. strychnine m. v. to a dose.

not be necessary for me to urge them to give it or its kindred drugs a fair trial.

And here I take leave of this interesting case, feeling sure that by placing it on record, I have established beyond doubt—first, that this malady is nervous in its origin; secondly, that it is nervous in its nature; and, thirdly and lastly, that, in at least some cases, it will be found amenable to nervine tonics.

Reviews of Books.

The Diagnosis and Treatment of Syphilis. By TOM ROBINSON, M.D. Pp. 138. London: J. & A. CHURCHILL. 1886.

Dr. Tom Robinson has, he tells us, been indebted largely to private practice for bringing him into "contact with the drama of syphilis." "Dramatic" might in some degree be said to characterise this book. The language, at least, is neither prosaic nor tame. For instance: "We now pass on to the last of my venereal sores. I am always unwilling to abolish old names; but . . . we are apt to be fascinated by the division of syphilis into primary, secondary, and tertiary syphilis. A patient of mine came to me one day saying he had *fourthlies*. Such divisions are unscientific, and certainly not natural. I am acquainted with the other divisions which have been used by Virchow and others." We trust that, on the other side, Virchow has, as a matter of fairness, had an opportunity of studying the list of what Dr. Tom Robinson calls "his venereal sores."

"The long bones are most commonly influenced by the necrosial process; whilst the flat bones become carial." If the author, though "unwilling to abolish old names," is occasionally driven to use new ones, we must surely admit that the novelties sound musical. "Necrosial" and "carial" vaguely suggest something which gods are supposed to eat and drink.

"Iodide of Potassium.—This drug will eat up all syphilitic products with marvellous precision." We have thought that, if a fiery dragon happened to be found in a travelling caravan of horrors, this sentence would be an excellent label to hang over it.

Such is the book. Not improperly might it be named, in the author's own words, "The Drama of Syphilis."

Practical Pathology. By JOHN LINDSAY STEVEN, M.D. Pp. 266. Glasgow: J. MACLEHOSE & SONS. 1887.

This is a sensible, practical, useful book, dealing with the whole question of the instruction of students in Pathology. Beginning with a full and excellent account of the method of

making a *post-mortem* examination, the author gives admirable directions for the preparation, cutting, staining, injecting, and mounting of sections for the microscope, and then gives an exhaustive practical description of morbid histology as regards both processes and organs. The work has evidently been prepared with great care; nothing is superfluous; there is no overlapping of subjects; and the matter has been rigorously subordinated to the wants of the practical student.

It is probably beside the mark to say that we should like to see this work in the hands of every English student who is being instructed in Pathology; for as yet there is scarcely such a thing as pathological instruction in England—at least, in the full sense that such instruction means in Germany and in Scotland. Consequently we fear that the demand for the book on this side of the border will not be on a level with its merits: we trust that its success will be all the more fully assured on its own soil.

Congenital Club-foot. By ROBERT WILLIAM PARKER. Pp. 104. London: H. K. LEWIS. 1887.

By honest work Mr. Parker has established the right to be heard as an authority on club-foot. This book presents in short and readable form his matured conclusions as to the pathology and the treatment of this deformity. He endeavours to establish the following propositions:

"That certain of the tarsal ligaments are relatively short, owing to developmental malposition of the bones between which they lie." To malposition we should add "and malformation": the bones are under-developed on one side, thus the ligaments on this side are shortened.

"That this anatomical condition is CONSTANT, and is the chief impediment to the reduction of the deformity." With this we heartily agree.

It is argued therefrom—

"That simple tenotomy leaves the major part of the anatomical condition untouched."

"That the relapses which so frequently occur after tenotomy, and even after the prolonged use of mechanical appliances, are largely due to the unyielding nature of these ligaments; and

"That the remedy is to be sought in DIVISION OF THESE STRUCTURES."

With the third and fourth propositions we also heartily agree. To the fourth we should add, "along with manipulation and encasement of the foot in unyielding bandages."

Probably the final blow has been dealt to tenotomy for congenital club-foot. Following sound pathology, we know that over-pressure prevents growth of bone, and under-pressure permits growth: if a club-foot is forcibly manipulated into the straight position, the bones on the convexity are prevented from growing, while the compressed bones on the concavity are permitted to grow. If the bones grow the ligaments will grow, and the process may be managed inside a plaster casing. If the child is too old, then division of ligaments will permit the out-folding of the foot. To divide the calcaneo-scaphoid ligament is to greatly weaken the arch of the foot, and may ultimately predispose to one of the most troublesome forms of flat-foot. Therefore, only on failure of manipulation and immobility should we resort to this expedient. Division of the plantar fascia is very frequently of great value as supplementary to forcible manipulation; but we should hesitate before dividing the ligament which practically supports the keystone of the arch of the foot.

We can heartily commend Mr. Parker's book. His pathology is sound, his reasoning is acute and convincing; and if his treatment has swung a little too far on the side of the heroic, and has partly overlooked the character of results got by simpler methods, it has the merit of striking at the root of the real cause of the disease.

THREE YEAR-BOOKS.

The Medical Annual. 1887. Pp. 550. Bristol: J. WRIGHT AND CO.

Cassell's Year-Book of Treatment. 1886.

Official Year-Book of the Scientific and Learned Societies. Pp. 236. London: C. GRIFFIN & CO.

The Medical Annual for this year gains in value in one department by diminishing its value in another. The Therapeutic matter is greatly increased in extent, while its very useful summary of the Spas of Europe has been abolished. The former change places it in competition with *Cassell's Year-Book*, which is unnecessary, to say the least of it; while the latter change is a distinct loss.

Cassell's Year-Book retains its character of high excellence, as might be expected, from the position and reputation of the men engaged in its production. With a few of the collaborateurs its pages seem to be used rather for the purpose of

criticism than for summarising and abstracting. This we consider ought to be strictly forbidden.

The Official Year-Book of the Scientific and Learned Societies seems to have crystallised into something like permanent and definite form. To the working scientific man it is a very valuable, almost necessary, addition to his stock of books. It is so full that we are sorry that it is not absolutely complete and exhaustive. We should like to find in future issues the days of meeting of the societies, and the names of the papers read at every one of them. Possibly this may overstep the limits of the publishers' means, and the patience of the secretaries of the societies.

Journal of Hydrotherapeutics. No. 1. April, 1887. London: The Scientific Publishing Company, Limited.

We are glad to welcome this new Journal, on a subject of steadily increasing interest. The practice of flushing the tissues for the purpose of washing out excreting matter has a good foundation in physiological experiment: the well-known effect of injection of fluids in restoring the contractility of exhausted muscle, the utility of massage in improving the nutrition of the tissues, and then the every-day observations of the bath-physician, are all in favour of an extension of the various methods of treatment by mineral waters.

The mere introduction of large quantities of water into the organism must be considered to be a potent therapeutic agency; and when we remember that the natural water is usually a thermal one, and always a saline, we have the three factors: fluid, warmth, and mineral drugs, all working simultaneously and harmoniously together.

The curative value of a course of the "waters" is becoming more and more recognised; but "even a slight acquaintance with the mineral waters of the Continent must suffice to convince the student of medicine that it would be as wise to let his patient help himself indiscriminately to the bottles in a dispensary, as to encourage a hap-hazard employment of solutions of minerals prepared in the laboratory of Nature."

Much true scientific work may be carried on at health resorts; and it is for the purpose of promoting progress in the scientific study of Medical Hydrology and Climatology that our new contemporary has been established. It cannot fail, at the same time, to be of much value to the patients who find it necessary to visit these resorts, and to the medical men who have to aid in the selection of a suitable one for the individual case.

Diseases of the Joints. By HOWARD MARSH, F.R.C.S. Pp. 461. London: CASSELL & Co. 1886.

This, the latest of Cassell's excellent series of Clinical Manuals, is scarcely to be reckoned among the best. Possibly it is not easy to maintain the high standard to which the first numbers in the series rose; still, a drop from high excellence to mediocrity in the progress of an undertaking is disappointing. Not only is this work not up to the standard of the series; it is distinctly inferior to at least two other well-known works in the English language on the same subject.

The work is in no sense original. This we should not complain of if the author had made himself familiar with the original work of others. The pathology is done by proxy, and is, naturally, somewhat scurvily treated. In these days we like to believe that the most scientific treatment is worked out from the most perfect pathology. In this work pathology and treatment are as the poles asunder; not only are they written by different men—they might have been written in different languages, and even in separate books. There is not a shadow of an attempt to harmonise them. We do not affirm that the pathology is not sound, but it is meagre or beside the mark, and it has not been welded into the structure of the work.

In the purely clinical descriptions the author is at his best. But here also something is to be desired. The author has confined himself too strictly to his own experience. Now, experience is the best of teachers, if it is active and exploring, and not passive merely: experiment as well as observation should contribute to it. The three hospitals with which Mr. Marsh is connected ought to have provided a sufficiently wide field for experiment: it is just conceivable that, the area being so wide, the surface only could be tilled. In a word, the author's world is St. Bartholomew's Hospital. He describes his own position himself (p. 320): "I feel assured, in expressing the opinion I have given above, by the knowledge that my views are in full accordance with those of my colleagues both at St. Bartholomew's Hospital and at the Hospital for Sick Children." Now, St. Bartholomew's Hospital is not the world, even with the Hospital for Sick Children thrown in. It is more than an act of grace, it is a duty, to pay some attention to the work of others outside one's own hospital.

The best parts of the work are those dealing with Epiphysitis, Internal Derangement, Bone-setting, and Nervous Mimicry; and the descriptions of special diseases of special

joints are clear and trustworthy. The least satisfactory chapters are those dealing with scrofulous diseases of joints, and generally with inflammatory and suppurative disease. The manner in which he speaks of aspiration of over-distended joints made us rub our startled eyes and wonder if in this matter also his colleagues are with him. It is clear that the author has no experience of this invaluable mode of accelerating cure in over-distended joints, and preventing subsequent weakness from stretching of ligaments, otherwise we are confident he would not pass it over as he does with a casual damnatory remark. Evaporating lotions, locally; aconite, salicylate of soda, and morphia, and a diet of "milk, soup or broth, and farinaceous foods," sum up the best of Mr. Marsh's treatment of cases of acute synovitis. On one occasion, in St. Bartholomew's, it seems that Mr. Willett incised and drained a knee-joint for hydrarthrosis, and several months afterwards the patient had a joint "possessed of considerable movement." This precious case has a whole page to itself, and there is no other. We should have thought that if incision were kept for other cases, and aspiration with elastic compression for such as this, better surgery would have been practised.

We have no space to go over the whole book in this critical spirit: in too many instances it is possible to do so. It is because in some respects we believe the book will do harm, by pushing our knowledge backwards, that we speak definitely our opinion. Where it can only do good by calling special attention to a class of diseases but little understood, and by handling their description in a clear and vigorous manner, we have only praise to bestow. We are only sorry that in showing his ability to deal with these so satisfactorily, he has by comparison made more conspicuous the defects in other portions of the work.

A Text-book of Medicine. By Dr. ADOLF STRÜMPELL. Translated from the 2nd and 3rd German Editions by H. F. VICKERY, M.D., and P. C. KNAPP, M.D. Pp. 981. London: H. K. LEWIS. 1887.

English readers are indebted to American enterprise for the translation of Dr. Strümpell's admirable work. Under the editorial supervision of Dr. Frederick C. Shattuck, Instructor in the Theory and Practice of Physic at Harvard Medical School, Drs. Vickery and Knapp have done their

work exceedingly well. The graceful easy-flowing English sentences give no evidence of transliteration from the cumbersome German. Dr. Shattuck's interpolated notes and remarks are valuable, and distinctly add to the usefulness of the work.

The popularity of the work in Germany is very strong evidence in its favour. So far as we have been able to judge it is admirably suited for students, being concise, clear, well arranged, and fully up to date. Special commendation must be given to the chapters on nerve-diseases. Probably nowhere else in the English language will the student find this important and ever-changing subject so well and so succinctly handled. We heartily commend the work to our readers.

The Treatment of Spina Bifida. By JAMES MORTON, M.D. Pp. 228. With plates. 2nd Edition. London: J. & A. CHURCHILL. 1887.

Professor Morton's is essentially *the* treatment of Spina Bifida, in the sense of being better than all others; and we are glad to have a full and authoritative account of it provided by the originator. The work is enriched by the addition of Professor Humphry's drawings, and by a special account of the pathology of spina bifida from the pen of Professor Cleland. The author modestly refers to the report of the Clinical Society on his mode of treatment with some gratitude, and at the same time with a certain amount of independent criticism. Special committees have often been appointed by London Societies to enquire into special subjects: in this, as in other instances, they have been very harmless and very useless. The committee is to the original worker what the accountant is to the financier: a prosaic and mechanical critic of independent flights of genius. The profession cares nothing whatever for the committee of the Clinical Society: one independent and practical member of the profession is just as trustworthy as a whole subsidised and theoretical committee; and fortunately his evidence is of more weight with work-a-day men. In the whole history of the progress of human knowledge we have never heard of an original investigation, and rarely of a sound conclusion, being achieved by a committee: it is a combination of impracticables, and among practical men may safely be ignored. We sympathise with Dr. Morton in having to consider the report of this committee of the Clinical Society, and we heartily endorse his dissension from their conclusions.

Notes on Preparations for the Sick.

Pharmaceutical Preparations. BURROUGHS, WELLCOME AND CO., London.

We have received from this firm a large number of their special preparations, of which we are able to speak in the highest terms.

Amongst the dietetic group we have to notice the following:

Zymine (Fairchild), Extractum Pancreatis.
Peptonising Powders (Fairchild).
Zymine Tabloids ,,
Compound Zymine Tabloids (Fairchild).
Pepsine in Scales ,,
Pepsine Tabloids ,,

In the preparation of foods for the sick these excellent digestives are now taking a prominent position. The time is doubtless far distant when, as suggested by some facetious writer, the organism, "lightened of its load of viscera," may "go on its way rejoicing" by the aid of special chemically-prepared foods needing no digestion; nevertheless, the predigestion of food is far too important a matter to the sick to be passed over lightly by the physician, and the effects of predigestion are so marked that the patient who needs artificial aid will not be deterred by the scoff of the sceptic from adopting a method which is easily tested and is not usually found wanting.

Although we hold that the special utility of the peptonising process arises from its applicability to the *preparation of milk* for those subjects who cannot digest casein, or where the presence of curdled casein in the stomach might be deleterious; yet other peptonised foods, such as milk gruel; ox tail, mock turtle, and other soups; beef-tea, jellies, custards, blanc-manges, puddings, &c., are easily prepared with the pancreatic powder, and are found to agree in many aggravated cases of stomach disease when every other kind of treatment fails.

In any case of chronic dyspepsia it will suffice to supply only peptonised milk, and the patient will usually improve: most of the symptoms of acute and chronic dyspepsia are relieved; eructations, nausea, vomiting, pain, and flatulence usually cease, and ere long the patient is able to take first some other variety of peptonised and then unpeptonised food. In cases of acute febrile disease, such as enteric fever, if there should be vomiting, or any tendency to meteorism, the predigestion becomes a necessity which rarely fails to give as good a result as could fairly be expected from it.

We have found the **Extractum Pancreatis** (Fairchild) to be a most efficient peptonising agent. It is a dry powder, containing all the pancreatic enzymes in a most active and concentrated form, put up in convenient glass tubes as peptonising powders, with instructions which even the inexperienced can scarcely fail to understand: it is therefore an efficient agent for the preparation of predigested foods.

The **Tabloids of Zymine** are said to be the most convenient form for internal administration, for the purpose of aiding intestinal digestion. They should be swallowed either immediately after or two hours after a meal: in the former case they are considered to aid acid digestion in the stomach; in the latter case they may pass safely through the acid contents of the stomach during the later phases of digestion, when the extreme acidity diminishes, and reach the alkaline area beyond, where they will aid the pancreatic fluid in its various functions. Certainly we have found that the internal administration of pancreatine in powder or tabloids does relieve the symptoms of intestinal dyspepsia, more especially the flatulence of the torpid alimentary canal of senility. Each tabloid contains three grains of zymine in a form agreeable to the taste, easily carried about in the pocket, and easily swallowed.

The **Compound Zymine Tabloids,** containing three grains of bismuth subnitrate and a small dose of powdered ipecacuanha, with two grains of zymine, form a convenient and useful combination in many cases of weak digestion.

The **Pepsine Tabloids** and the **Pepsine in Scales** are both efficient substances in aiding gastric digestion. One grain of the latter will digest one thousand grains of egg-albumen, and one to three grains is a sufficient dose. Each tabloid contains one grain of the pepsine in scales, together with acids and appropriate aromatics: they can easily be swallowed entire, but are not unpalatable if broken or sucked

away. The advantages of this method of administration over the nauseous powders, or the liquid pepsines, are sufficiently obvious.

Another group of partly dietetic, and partly medicinal, substances, is the following:

Kepler's Extract of Malt.
,, ,, ,, with Cod Liver Oil.
Beef and Iron Wine (Burroughs).
,, ,, ,, ,, with Quinine (Burroughs).
Kepler's Cod Liver Oil.

The composition and utility of **Malt Extracts** are now well understood. Prepared at a temperature which never reaches 90°, the diastatic ferment has not been destroyed, and remains in combination with the malt-sugar, phosphates, dextrines, and albuminoids of the malted barley. The combination is therefore a valuable food, and at the same time an aid to digestion: it is pre-eminently a brain and nerve food, containing tissue-forming as well as force-producing and warmth-giving elements, in a form which will not tax digestion and will be easily assimilated.

The **Malt Extract with Cod Liver Oil** is spoken of as a solution, rather than a mixture or emulsion: "the oil is completely dissolved, so that globules, even as small as those in milk, cannot be seen." We have examined this "solution" under the microscope: no oil globules are visible, but we altogether decline to consider this mixture of two substances with the same refractive index as a solution. The mixture is homogeneous, and perfectly transparent even with high powers, the one being absolutely invisible in the presence of the other; but this is clearly due to the absence of any difference of refractive power of the two substances: we cannot admit that the oil has been dissolved in the watery extract. An apparent solution has been made; but in reality the combination must be looked upon as an emulsion, and hence it has the advantages arising from minute subdivision of the oil. It is well known that plain oil is apt to derange the digestive functions, to cause nausea, and sometimes diarrhœa, the oil passing through the alimentary canal undigested and unabsorbed. It has been said that greater benefit will usually be derived from five pounds of malt and oil than from twenty-five pounds of oil alone. Certainly the combination is more easily digested, and forms a highly nutritious, force-giving and heat-giving food. Its great utility in wasting diseases of all kinds, more particularly in scrofulous derangements, is now generally recognised; and its superiority over the ordi-

nary emulsions of cod liver oil is apparent, not only as regards its nutritive elements, but as a diastatic aid to digestion, and its agreeable taste as compared with other oily mixtures.

The **Burroughs Beef and Iron Wine**, with or without Quinine, is a combination of considerable nutrient and at the same time medicinal value. We have given them frequently in cases of convalescence from acute disease, and with decided benefit. Where active medication is not necessary, and where, as in the case of children, the ordinary stimulants may well be avoided, these restorative fluids expedite convalescence, and take the place of other more nauseous medicines. We have given them of late in many cases of measles, after the temperature had become normal, and with very good results. Their taste is not suggestive of chemical manipulation—even children take them readily; we think them excellent forms of medicinal food.

One of the most important groups of medicinal substances prepared by this firm is the **Hypodermic Tabloids**. These are well known to be accurate, efficient, and convenient. For some years we have given up anything else for hypodermic medication: the absolute freedom from change and constancy in effects have given them a position superior to all the various solutions which have been in use. The morphia tabloids never fail to act with rapidity, and commonly without subsequent vomiting: formerly we found that with a glycerine solution vomiting was the rule, now it is quite the exception. On two occasions we have observed rather alarming effects from these tabloids—in the one case with aconitin, in the other with pilocarpin. The first case was an urgent one. Morphia had failed to arrest a chronic sciatica, and it was thought that a full dose of aconitin hypodermically would be likely to relieve. The patient was an adult man, accustomed to active medication: accordingly two of the stronger tabloids were dissolved, and the whole quantity (gr. $\frac{1}{05}$) injected into the painful nerve. In the course of twenty minutes the patient complained of the earlier symptoms of aconitin, tingling in tongue and in fingers, then the pulse became intermittent, afterwards the pulse failed entirely, the patient becoming cyanotic and unconscious: for four hours he was in imminent peril, and then gradually recovered.

The other case was a severe attack of catarrhal asthma. Two of the $\frac{1}{10}$th grain tablets of pilocarpin were injected hypodermically, after several Joy's cigarettes had been smoked, and several doses of chloral and stramonium given. Two hours later the pulse was scarcely perceptible, the

patient was unconscious, was perspiring freely, and had a little salivation. These symptoms passed off a few hours later, and the patient convalesced rapidly, but for several hours had been in a critical condition, requiring hypodermic injections of ether.

These cases, and some others, suggest the reflection that for hypodermic injection excessive caution in dose is needful; should there be an idiosyncrasy on the part of the patient, the drug once injected cannot be removed, but can only be counteracted by some antidote.

The complete hypodermic pocket-cases with a selected series of tabloids form excellent companions when called to an emergency in the night: everything needful for the immediate relief of most conditions of emergency will be always ready.

The following newer tablets have been forwarded, and will doubtless be of occasional utility:

Quinine Hydrobromate, gr. $\frac{1}{2}$.
Aloin, gr. $\frac{1}{4}$.
Homatropin, gr. $\frac{1}{250}$.
Codein Phosphate, gr. $\frac{1}{4}$.
Caffeine Sodio-salicylate, gr. $\frac{1}{2}$.
Colchicin, gr. $\frac{1}{100}$.

The range for the use of such tablets as these hypodermically must of necessity be limited; but for internal administration they are a convenient and portable form in the treatment of emergencies where hypodermic medication is unnecessary.

The well-known series of **Wyeth's Compressed Tablets** has recently received several important additions, of which the most important are the following:

Antifebrine, grs. 2.
Antipyrine, grs. 5.
Bismuth Subnitrate, grs. 5 and 10.
Manganese Binoxide, grs. 2.
Dover's Powder, grs. 5.
Pulv. Ipecacuanha, grs. 5.
Urethane, grs. 5.
Strophanthus = two minims.
Trinitrine, gr. $\frac{1}{50}$ and $\frac{1}{100}$.
Comp. Trinitrine (containing gr. $\frac{1}{4}$ of Amyl Nitrite), gr. $\frac{1}{100}$.
Voice Tabloids (Cocaine, with Potass. Chlorat. and Borax).

These contain the pure drug only, without admixture or excipient, and are a convenient and portable form in which to keep a few important drugs in measured doses ready for cases of emergency. A table of poisons and their antidotes has been drawn up, and an antidote case containing all the necessary tablets and tabloids is prepared by this firm.

We have found the Urethane tablets to be perhaps the most frequently useful of the whole series. One, two, or three may be given as a hypnotic at bedtime, and others at intervals if they should be required. One patient has taken as many as ten during one night; but it rarely happens that more than three or four are necessary to secure a good night's rest.

Fluid Extract of Cascara Sagrada. Cascara Cordial. PARKE, DAVIS, & Co., Detroit, U.S.A.

The discovery of the specific action of the Cascara Sagrada on the muscular coat of the intestine, and its power of imparting tone and elasticity to the relaxed intestinal walls, thus restoring the natural vermicular movement and radically relieving habitual constipation, has elevated this new drug to a position which few have attained in so short a time. It appears to be generally admitted that this preparation is now the most important remedy in the treatment of habitual constipation: it is an aperient, but this is not all; it is *the* aperient which appears to have almost taken the place of all others where only a gentle stimulant to peristaltic action is required.

The most eligible form for the administration of the drug is that offered under the name of Cascara Cordial, in which the medicinal action of the drug is fully preserved, while its inherent bitter qualities have been so skilfully disguised by carminatives and aromatics as to render it acceptable even to children and those who commonly refuse unpalatable medicines. The dose as a laxative is from one-fourth to one teaspoonful, increased if necessary, twice a day, night and morning. The minimum dose should be commenced with, and gradually increased; and then, after continuing several months, should be discontinued in gradually decreasing doses. The object of treatment should be rather to permanently remove the cause than to temporarily relieve the symptom.

We have now and then found a patient who required doses of half-an-ounce or more: in such cases the addition of a few drops of the fluid extract will generally suffice to

produce the desired result, or the fluid extract alone may be given in place of the cordial. Various combinations, such as cascara and euonymin, or cascara with rhubarb and nitro-muriatic acid, have been found to be efficient; and the cordial forms a useful and efficient vehicle for quinine and other remedies.

We have reason to think that the preparations of Messrs. Parke, Davis, and Co. are distinctly superior to others which are frequently dispensed and sometimes fail.

Mineral and Medicinal Non-alcoholic Beverages.

CARTER & Co., Bristol.

Carter's Bristol Soda Water has long been known as one of the most highly charged with carbonic acid. The purity of the Bristol water has recently been submitted to the most severe and hostile tests; but no serious evidence could be obtained as to the presence of any deleterious organic impurity: it is, however, of interest to know that careful experiments show that if through inadvertence, ignorance, or carelessness any micro-organisms should remain in the water to be bottled, they are quite destroyed, and the water sterilised, in proportion to the volume of carbonic acid and the longer such microbes are brought under its influence. The water supplied by the Bristol Company, brought from the Mendip Hills, has been shown to be one of the best of its kind for drinking purposes; and when highly charged with carbonic acid by means of the most perfect machinery, with every guarantee of freedom from all injurious metallic salts, becomes one of the most perfect table waters which either nature or art can procure. We are often told by patients that soda water is "lowering"; but we have had no evidence of any such result, and believe it to be in opposition to universal experience. We think that this beverage is one of the most wholesome, refreshing, and exhilarating means of washing away the products of physiological tissue-activity, and that its abundant use at home would frequently take away the need for lavish expenditure of time and money in visiting the various foreign health resorts, in which the drinking of an aerated water forms the most essential element of treatment.

The **Lime Fruit Flavoured Soda Water** is a mixture of the ordinary soda water with lime fruit syrup, and is a very palatable combination for those who like this kind of drink.

The **Orange Champagne** is a non-alcoholic fluid made from Seville oranges; and the

Ginger Champagne from fine Jamaica ginger. These fluids are elegantly mounted in champagne bottles, and are both agreeable substitutes for the alcoholic fluids which formerly occupied those bottles. They cannot fail to be appreciated by abstainers who prefer the stimulating action of ginger, and by dipsomaniacs who can drink nothing from any other kind of bottle.

The **Tonic Quinine Water** contains Howard's sulphate of quinine with a little fruit liqueur. We prefer to take our medicine in the form of coated pills.

St. James' Rum. G. W. CHRISTIE & Co., London.

We have received a sample of this very pleasant and pure spirit, which a medical man will find exceedingly useful when he wishes to administer such a stimulant.

PERISCOPE.

SURGERY.

Ephemeral Glycosuria in Surgical Practice.—Dr. Redard has published a paper on this subject in the *Revue de Chirurgie*, 1866, Nos. 9 and 10.

He states that ephemeral glycosuria frequently appears in surgical practice: it is in some instances accompanied by ephemeral albuminuria; very often the sugar is replaced by albumen, and *vice versâ*. The condition has been noticed after slight injuries; but more frequently, in fact almost constantly, in phlegmonous and gangrenous affections, anthrax, lymphangitis, and erysipelas. The sugar usually appears just as pus is about to form, and when the temperature of the body is suddenly elevated. None of these patients presented glycosuria or other symptoms of diabetes after the cure of the surgical affection, nor had they a previous diabetic history. To account for the appearance of sugar in the urine at certain times, the author suggests that the impression produced at the periphery by a cutaneous inflammation, or some other local morbid condition, might be transmitted to the vaso-motor fibres contained in the splanchnic nerves, and so cause hyperæmia of certain organs, especially the liver and lungs, and accelerate the transformation of glycogen into sugar, thus giving rise to glycosuria.—*London Medical Record*, Dec., 1886.

Chronic Serous Synovitis. Hydrarthrus.—Dr. Edward Von Donhoff, in a paper read before the Louisville Medical Society, states that cases of hydrarthrus do not occur as frequently as those of fungous synovitis. They are distinguished from the latter, as in nowise tending to spontaneous pyogenesis; this phenomenon only occurring after repeated irritation or injury. Chronic hydrarthrus consists in a slow accumulation of thin synovial fluid, associated with very slight structural changes in the synovial membrane, which becomes only a little thickened, and is marked by an increase of connective tissue without any increase of vascularity. The

synovial tufts are elongated, and in their apices the vessels become more tortuous. The granulation-changes due to serous and plastic infiltration are absent.

The origin of chronic dropsies of joints is ordinarily attributed to cold or traumatism; it is often the remnant of former articular trouble; is chronic from its inception, and remains so. The disease is, when unmodified by unavoidable circumstance or meddlesome surgery, a harmless inconvenience, overcome by judicious management, except in old subjects of lessened general vitality. The treatment may be described briefly thus: Rest; the promotion of absorption of effused fluids by pressure, local and general; tonic and alterative remedies, constitute the conservative treatment. Aspiration, followed by fixed dressing, and ice-cold water irrigation, represents the intermediate operative course. While free incision and evacuation, followed by hermetic sealing, fixed dressing and strict antiphlogistic regimen, make up the heroic procedure, permissible in rare instances of failure of the less formidable plans, or in cases where accident or mischievous ignorance has invited purulentiform alteration of the milder condition. Dr. Von Donhoff refers to the treatment by iodine injections into the joint, recommended by Boinet and Ricord, as impracticable and dangerous to life and limb, from its great liability to convert a simple catarrhal into a violent suppurating condition.—*American Practitioner and News*, April 2nd, 1887.

[No reference is made to the combined treatment of injections and subsequent free drainage.]

Rectal Examinations in Morbus Coxæ.—Dr. Arnold Schmitz, in the *Centralblatt für Chirurgie*, No. 11, 1886, discusses the above with respect to its diagnostic worth. The object of this examination is the palpation of the inner surface of the acetabulum through the rectum. The author reported three cases in which he had used the method, as follows:

(1) A boy, æt. 3, with an abscess over the trochanter, free movement of the hip-joint under narcosis, and some prominence of the lumbar spines. On rectal examination, a distinct swelling, prominent but not fluctuating, was felt in the acetabular region. This made the diagnosis of acetabular coxitis manifest. The subsequent course of the disease confirmed the diagnosis.

(2) A 5-year-old boy, who acquired disease of the hip while convalescing from measles. Rectal examination showed an abscess on the inner wall of the acetabulum, about the size of a hen's egg. The presence of this abscess explained the pain

on defæcation of which the patient had complained for some time. On resection, a tubercular sequestrum, the size of a bean, was found in the floor of the acetabulum.

(3) A 5-year-old boy, with spondylitis. On rectal examination, an abscess, the size of a walnut, was felt on the inner surface of the acetabulum. A resection showed a perforation of the acetabulum into the pelvis.—*Cincinnati Lancet-Clinic*, Jan. 27th, 1887.

A Case of Strangulated Hernia, producing Acetonæmia in a Diabetic Subject. Herniotomy under Cocaine. Coma and Death. — Dr. Railton and Mr. Southam publish this interesting case. The patient, a woman æt. 56, came under the care of Dr. Railton at the Manchester Clinical Hospital for Women, in November, 1886, complaining of constant thirst and a rapid loss of flesh. Her urine was found to contain a considerable amount of sugar, but no albumen. Her weight was then 113 lbs. 6 ozs. She attended regularly up to Feb. 17th, 1887. The amount of sugar in the urine varied, sometimes being entirely absent. Her weight steadily diminished: on Feb. 17th it was 95 lbs. No albumen was seen; her breath was invariably free from the odour of acetone; and there was an entire absence of claret-colour reaction in the urine when tested with perchloride of iron for aceto-acetic acid.

On Feb. 23rd, Dr. Railton was asked to see her at her own home. As he was about to enter the bedroom, he noticed, for the first time, the acetone smell, which pervaded the air to such an extent that it was perceptible outside the bedroom door. It appeared that the patient had vomited everything since the 21st; and complained of pain in the left groin. On examination, a small hernia was found, evidently strangulated. She had suffered from hernia for some years, but as it caused no trouble she had not called attention to it. The urine, when tested, was now found to contain aceto-acetic acid, but no albumen. Herniotomy was performed under the influence of cocaine, and was almost painless. The next morning the patient appeared to be progressing satisfactorily; but in the evening she suddenly became comatose, and died the following morning, thirty-six hours after the operation.

An hour before death the nurse observed that the entire surface of the body became of a bright red colour, like a boiled lobster; and just before death the hands and feet became perfectly black for the space of about five minutes.

At the post-mortem examination, the wound was found to be healthy, and showed well-marked signs of repair. The

smell of acetone was strongly perceptible in the brain, and, though faint, was recognisable in the liver. The brain and kidneys appeared healthy; the heart was flabby, with a pale yellow colour, and right enlargement; the lungs were congested; and the liver presented some pale fatty-looking patches, but was otherwise healthy.

This case was a mild form of diabetes, slow-moving with spontaneous remissions. Some consider cases of this class to be mere glycosuria rather than true diabetes. It is interesting to note that, even in these cases, the danger of a shock to the nervous system is almost equally as great as in the more typical forms. In this case the acetonæmia was doubtless due to the shock produced by the strangulation of the bowel, and was not perceptibly increased by the operation.—*The Medical Chronicle*, April, 1887.

The Surgery of the Pancreas.—Dr. Senn, in an excellent and detailed series of papers in the *International Journal of the Medical Sciences* for July and October, 1886, and January, 1887, gives the results of his experimental and clinical researches on the pancreas, from a surgical point of view. In concluding, he submits the following propositions:

(1) Restoration of the continuity of the pancreatic duct does not take place after complete section of the pancreas.

(2) Complete extirpation of the pancreas is invariably followed by death, produced either by the traumatism or gangrene of the duodenum.

(3) Partial excision of the pancreas, for injury or disease, is a feasible and justifiable surgical procedure.

(4) Complete obstruction of the pancreatic duct, uncomplicated by pathological conditions of the parenchyma of the organ, never results in the formation of a cyst.

(5) In simple obstruction of the pancreatic duct, the pancreatic juice is removed by absorption.

(6) Gradual atrophy of the pancreas, from nutritive or degenerative changes of the secreting structure, is not incompatible with health.

(7) Physiological detachment of any portion of the pancreas is invariably followed by progressive degeneration and atrophy of the glandular tissue.

(8) Extravasation of fresh normal pancreatic juice into the peritoneal cavity does not produce peritonitis, but is rapidly removed by absorption.

(9) Crushed or lacerated pancreatic tissue is removed by absorption, provided the site of operation remains aseptic.

(10) Complete division of the pancreas by elastic constric-

tion is never followed by restoration of interrupted anatomical continuities.

(11) Limited detachment of the mesentery from the duodenum, as required in operations upon the pancreas, is not followed by gangrene of the bowel.

(12) In all operations upon the head of the pancreas, the physiological connection of the peripheral portion of the gland should be maintained by preserving the integrity of the main pancreatic duct.

(13) Partial excision of the splenic portion of the pancreas is indicated in cases of circumscribed abscess and malignant tumours, in all cases where the pathological product can be removed completely without danger of compromising pancreatic digestion or inflicting additional injury upon important adjacent organs.

(14) Ligation of the pancreas at the point or points of section should precede extirpation, as a prophylactic measure against troublesome hæmorrhage and extravasation of pancreatic juice into the peritoneal cavity.

(15) The formation of an external pancreatic fistula by abdominal section is indicated in the treatment of cysts, abscesses, gangrene, and hæmorrhage of the pancreas due to local causes.

(16) Abdominal section and lumbar drainage are indicated in cases of abscess or gangrene of the pancreas where it is found impossible to establish an anterior abdominal fistula.

(17) Thorough drainage is indicated in abscess and gangrene of the pancreas, with diffuse burrowing of pus in the retro-peritoneal space.

(18) Removal of an impacted pancreatic calculus in the duodenal extremity of the duct of Wirsung, by taxis or incision and extraction, should be practised in all cases where the common bile-duct is compressed or obstructed by calculus, and death is threatened by cholæmia.

(19) In such cases, the principal source of danger—extravasation of bile into the peritoneal cavity—should be avoided by preliminary aspiration of the dilated bile-ducts, accurate closure of the visceral wound with fine silk sutures, and absolute physiological rest of the organs of digestion during the time required in the healing of the visceral wound.

Paralysis due to the Compression of the Spinal Cord.—Dr. Strumpnell, of Erlangen, has recently made some interesting observations concerning the paraplegia caused by compression of the spinal cord, especially when the latter is

caused by accumulation of pus from diseased vertebræ, or by other affections of the bony covering of the cord.

Paraplegia is frequently caused by myelitis, which may be produced by various morbid lesions, among which is compression. Compression, however, may cause paraplegia by mechanical action without the development of any inflammatory process. These are the cases where, after death, no degeneration of the cord is found; and also those in which, after removal of the compressing material, the paralysis disappeared, and motion was as good as ever.

In Pott's disease with paraplegia due to effused fluids, these are sometimes absorbed with surprising rapidity, when the curative inflammation has resulted in perfect immobility of the parts.

The point to which Strumpnell has called attention is of great practical importance, both as regards prognosis and treatment.—*Medical and Surgical Reporter*, Feb. 19th, 1887.

W. J. PENNY.

Cocaine in Lithotrity.—In *El Siglo Medico* for March, 1887, Dr. E. Suender gives the following record: Dr. Robert Weir, of New York, first performed lithotrity, using hydrochlorate of cocaine as a local anæsthetic, in February, 1885: he injected into the bladder 10 grammes of a 4 per cent. solution, and fifteen minutes after proceeded to crush a stone of 2 centimetres in diameter; the operation was satisfactorily completed in from eight to ten minutes. Dr. Brungs, of Tubinga, shortly afterwards injected 40 grammes of a 2 per cent. solution into the bladder, and 10 grammes of the same solution into the urethra. After waiting six or eight minutes he completely filled the bladder with warm water; he then crushed a stone of more than 2 centimetres in diameter, the detritus weighing 4 grammes. The operation lasted twenty-two minutes, the patient having felt no pain whatever during the crushing.

In December of the same year Dr. Dubac communicated to the Medical Society of Paris the result of an operation he had performed, under cocaine, on a patient who had been operated upon both under chloroform and without an anæsthetic. The quantity of cocaine used was 1 gramme in 40 of water; the result was satisfactory, but the patient expressed his preference for chloroform.

Dr. Watson, of Boston, injected 28 grammes of a 4 per cent. solution, and crushed a stone the *débris* of which weighed $4\frac{1}{2}$ grammes. In fifteen minutes—the operation being then nearly completed—the patient complained of sharp pain, and

there was spasmodic contraction of the bladder. A second injection of cocaine was introduced, and the operation completed painlessly.

Dr. Boeckel, of Strasburg, with the object of completing the crushing of a stone which operation he had commenced five days previously under chloroform, injected a 4 per cent. solution of cocaine; the sensibility of the bladder was scarcely diminished, and the operation was therefore suspended. Two days later he injected a 10 per cent. solution, when complete anæsthesia, lasting twelve minutes, was obtained. Five days after, he injected a 15 per cent. solution, when he obtained perfect insensibility of the bladder, lasting nearly half an hour.

Dr. Delefosse used a 3 per cent. solution, of which he injected 50 grammes: in ten minutes the patient became pale and complained of nausea; in five minutes more he vomited. The passage of the lithotrite was painful; but the crushing was well borne for eight minutes, when the patient complained of sharp pains in the bladder, and the completion of the operation was postponed.

Dr. Calleonzis, of Athens, injected into the bladder 100 grammes of a 5 per cent. solution, equal to 5 grammes of the hydrochlorate: after twenty minutes, without drawing off the injection, he began to crush a hard calculus. The operation lasted twenty-four minutes; the *débris* weighed 6 grammes.

Dr. E. Suender (the writer), on the 1st of December, 1886, operated upon a man 60 years of age. He injected 30 grammes of a 5 per cent. solution: after waiting twenty-five minutes, he introduced the lithotrite and crushed the stone. The operation lasted six minutes, and was painless throughout.

On the 26th December he operated on a man, 20 years of age, who had suffered from stone for four years. He injected 40 grammes of a 5 per cent. solution: in twenty-five minutes the patient complained of loss of sensation all over the body, and great heat about the lower extremities; he then vomited some yellowish liquid. The pulse and temperature remained normal. All the symptoms disappeared when the bladder was emptied. The *débris* of the stone—oxalate of lime—weighed 18 grammes.

Dr. Bignon, of Lima, has arrived at the following conclusions:

(1) The physiological effects of cocaine are transitory, if taken in quantities of from 30 to 50 centigrammes, in doses of 5 centigrammes every hour.

(2) The alkaloid acts principally upon the urinary secre-

tions, impeding the elimination of the products of oxidation, and producing slight symptoms of uræmic poisoning.

(3) In large doses it produces anuria.

(4) The action upon the kidneys passes off in two or three hours, and is followed by diuresis.

(5) Cocaine produces toxic effects in an indirect manner—that is to say, by suppressing the elimination of toxic products, uræmic poisoning results. J. Bain Sincock.

GYNÆCOLOGY.

The Operation of Shortening the Round Ligaments.—An excellent paper on this subject, read before the Baltimore Academy of Medicine by Dr. Thomas Ashby, ended with the following summary of conclusions:

(1) The round ligaments are designed to hold the uterus in its axis in the pelvis, and to draw the fundus of the organ towards the symphysis pubis. They have little if any sustaining power in preventing procidentia, except in extreme cases of descent, where the organ has escaped outside the vulva. Exterior displacements of the uterus can only take place when the round ligaments have been relaxed or stretched by prolonged tension.

(2) Shortening the round ligaments is a practical method by which the uterus may be lifted into its normal axis, and be retained in position by a restoration of its normal supports.

(3) The operation is admissible in all cases of posterior displacement where the uterus is not fixed by adhesions, but perfectly movable in the pelvis, and where other methods of support are not of service.

(4) The operation can prove of little value in cases of procidentia, except when employed in conjunction with other methods instituted to overcome this form of displacement.

(5) The operation can be easily performed by one who is familiar with the anatomy of the parts. It is almost devoid of danger if ordinary safeguards are employed.

(6) In the class of cases to which it is limited, the benefits secured are striking and important.—*New York Medical Journal*, Feb. 12th, 1887. W. J. Penny.

LARYNGOLOGY.

Influence of the Laryngoscope on the Diagnosis of Extra-laryngeal Affections.—Paul Koch (extract from *Journal of Laryngology and Rhinology*, Feb., 1887). The author points out how great is the assistance afforded by the

use of the laryngeal mirror in the diagnosis of general diseases; and after referring to laryngeal phthisis, he asserts that ulceration of the larynx in typhoid fever is of much commoner occurrence than it is thought to be. In acute articular rheumatism, although the crico-arytenoid joints are only exceptionally affected, the laryngeal dyspnœa sometimes met with in this disease is explainable by the discovery of round painful swellings over the arytenoid cartilages. He refers to the laryngeal neuroses of locomotor ataxy; finally he refers to hysterical throat affections, and considers that they can be explained only on the assumption of cortical motor centres, which are bilateral and independent of the centre of speech, which is only unilateral.

[There cannot be a doubt, that the laryngoscope is not used as frequently as it ought to be in general medical practice, mistakes being made, owing to this neglect, which would be entirely avoided, if only all practitioners would use this instrumental means of diagnosis, as they do the ophthalmoscope.]

Primary Syphilis of the Tonsils.—Dr. Malin, *Norsk Magazin for Lægeridenskaben*, Oct., 1886, describes two cases of chancre of the tonsil. The first was in a man, aged 54, whose left tonsil was affected; the second in a woman, aged 56, whose right tonsil was the seat of the disease. In both cases typical secondary symptoms were seen, and the characteristic ulceration of the surface of the chancre ensued. The infection is supposed to have been caused by foul drinking-vessels.

Thomaschewski, *Wiener Med. Presse*, Nos. 30—35, 1886, relates particulars of two cases in which one tonsil was thus affected—being hard, much enlarged, the colour of raw flesh, and ulcerated. Pain in swallowing was slight; the cervical glands were swollen and hard, and a macular and papular eruption developed. The external inguinal glands were affected more than the internal ones.

[The diagnosis of these cases is often very difficult; and an obstinate tonsillitis, with some superficial ulceration, is looked on and treated as a follicular inflammation with cheesy exudation, with, of course, no great good being done. The induration of the tonsil and the large, unilateral, hard and usually painless, swelling at the angle of the jaw, and also the swollen, hard, cervical glands, are diagnostic. Of course, the secondary rash puts an end to one's difficulties. I have lately had a case of chancre of the left tonsil in a young girl, in which the affection had previously been diagnosed as a simple tonsillitis, but in which the characteristic ulcer, fol-

lowed by cicatrisation, leaves no room for doubt as to its syphilitic origin, although the rash was of a most evanescent character. Anti-syphilitic remedies speedily cured the condition.]

The Treatment of Nasal Diphtheria.—A. C. Reierson (extract by H. Mygind, *Journal of Laryngology and Rhinology*, Jan., 1887). The author, believing that the pituitary membrane forms a nidus for micrococci more easily than almost any other mucous membrane, and finding that the treatment of the affection by the injection of antiseptic liquids through the nostrils, or by the removal of the false membrane by forceps, is often very unsatisfactory, suggests the use of bougies in order to apply drugs to the affected parts. The bougies are made thus:

Cocain. Hydrochlor., gr. $\frac{1}{8}$.
Acid. Boracic., grs. xv.
Amyli,
Gummi Arab. pulv., $\overline{aa}$ gr. iss.
Glycerin., q.s.

The size is that of the usual nasal bougie, and for children shorter, but of the adult diameter, the amount of cocaine and boracic acid in each being less.

One is to be applied to each nostril, and pushed along the inferior meatus until it reaches the naso-pharynx. They melt in an hour; and if relief be not experienced after syringing the nostrils, they may be again introduced.

BARCLAY J. BARON, M.B.

Deformities of the Nasal Septum.—Professor Bosworth, in an interesting paper read before the New York Academy of Medicine, describes the varieties of deformity of the nasal septum. After alluding to deformities caused by deflection of the whole or parts of the septum, he describes a condition which he considers to be generally due to traumatism. This consists briefly of a prominent ridge running along the sutural lines, and which may be classed under three heads, in their order of frequency, as follows:

First, that in which the ridge is found along the line of junction between the vomer and the palatal process of the superior maxillary bone.

Second, that in which the ridge is found extending along the junction of the cartilage of the septum and of the vomer, and ending abruptly at the junction of the upper border of the septal cartilage and the perpendicular plate of the ethmoid.

Third, that in which the ridge extends along the whole anterior edge of the vomer, including its union with the cartilaginous septum, as well as perpendicular plate of the ethmoid bone. This deformity is most frequently confined to one side, but may be developed on both sides of the same suture. It consists in a sharp-pointed spur or ridge, as it were, projecting on one side of the septum, with, in no case, a corresponding depression on the other. It is therefore not a deflection in any sense of the word. He knows no better way of explaining its existence than to regard it as a chronic arthritis, or perhaps a deforming arthritis as the result of an injury.

In the treatment of these deformities, the object in view has been to restore normal nasal respiration. Various operations resorted to by Blandin, Adams, Steele of St. Louis, Jarvis of New York, Roberts of Philadelphia, Chassaignac, Gross, and Ingalls are referred to; but Professor Bosworth states that, in his hands, these various operations have failed to meet the requirements of a large majority of cases. He consequently invented a saw, with which, after anæsthetising the parts with cocaine, the projecting ridge is sawn straight off, as "we saw a board out of a log," the object being to reduce the septum as far as possible to its normal outlines. Professor Bosworth has operated on 166 cases; in one case only was the septum cut through.

Forty-five cases were operated on for hypertrophic rhinitis, of which 32 were cured and 13 relieved. The symptoms of these cases were briefly those of nasal stenosis, with mouth breathing. Dr. Bosworth states that mouth breathing is never a habit; it is a necessity, due to the fact that the individual cannot get air enough through the nose.

Twenty-one cases were done for simple chronic rhinitis. The prominent symptoms of this class were, especial liability to cold, nasal stenosis, snuffling, and watery discharge from the nose. The majority were cured by the operation; a few cases of long standing required a little after-treatment.

Five cases of laryngitis were treated, with 3 cures and 2 markedly relieved.

There were 18 cases of bronchitis, of which 8 were cured and 10 relieved.

Five cases of simple irritative cough were all cured.

Thirteen cases of hay fever, with 5 cures.

Eleven cases of hay fever and asthma, with 5 cures.

Twelve cases of asthma alone, with 6 cures.

Two cases of rose-cold; both cured.

Two cases of rose-cold and asthma; both cured.

The special points to which attention is called are: First—that a nasal stenosis due to obstructive lesion must necessarily be followed, sooner or later, by hyperæmia of the membrane beyond the point of obstruction; this occurring, first in the nose, and secondly in the larynx, trachea, and bronchial tubes.

Second—a hyperæmia of the nose is liable to be followed by hyperæmia of the air-passages beyond, as the result of an intimate physiological connection between the two, both deriving their vaso-motor control probably from the same central ganglia; this hyperæmia, either in one location or in the other, tending towards the development—first, of catarrhal inflammation with hypertrophy, as shown in the cases of laryngitis and bronchitis dependent on nasal disease, and only relieved by treatment of the nose; and, second, in those cases in which complete vaso-motor paralysis develops in the nose, giving rise to hay fever, which, sooner or later, is followed by vaso-motor paralysis in the bronchial mucous membrane, causing true asthma.

Twenty-four of the cases treated suffered from more or less impairment of hearing, and were all benefited by the operation.

In conclusion, Professor Bosworth expresses his belief that climate has very little to do with causing a morbid condition of the upper air-passages, but has much to do with aggravating the condition when it exists. He believes that a large majority of cases are primarily due to injury, as a rule, inflicted during childhood.—*The Medical Record*, Jan. 29th, 1887.

W. J. PENNY.

On the Value of Lactic Acid in the Treatment of Phthisis Laryngea.—Dr. R. Masini, quoted by *Revue mensuelle de Laryngologie*, Feb., 1887. The author has used lactic acid, as recommended by Krause and Jélinek. At first, in 20 per cent. solution, which caused a little cough, a sensation of burning, and intense redness of the parts touched with it. A 40 per cent. solution caused a feeling of constriction, and also ulceration; and, in spite of the use of cocaine, the patients were scarcely able to bear the treatment because of the irritation set up by it, and in one case hæmoptysis occurred. In spite of this, Dr. Masini used the acid in 80 per cent. solution, as recommended by Krause; the result being that, although cocaine was employed previously to the acid, such violent spasm of the glottis supervened, that artificial respiration had to be performed in order to keep the patient alive.

The author does not, therefore, like the lactic acid treatment, and much prefers an ethereal solution of iodoform.

[I have not yet tried lactic acid in the treatment of this terrible disease; but, from what I have repeatedly seen when using solutions of nitrate of silver in the larynx, I can quite believe that a strong acid like lactic acid would set up great irritation, and, in some patients, dangerous spasm. It is also difficult to understand what especial effect, other than a cauterising one, the substance can exert on parts infiltrated with tubercle. The iodoform treatment I find very useful: either powdered iodoform insufflated, or a saturated solution in ether, applied with a brush or a dropper. Menthol—20 per cent. solution in olive oil—dropped on to the affected parts, also seems to quiet pain.]

Tuberculous Growths in the Larynx.—R. Ariza (extract by R. de la Sota, in *The Journal of Laryngology and Rhinology*, Jan., 1887). The author describes two cases of the polypoid form of laryngeal tuberculosis. One was a man, 50 years old, with a tumour attached by a broad base to the inter-arytenoid laryngeal wall; the other was a young lady with several growths on the same region, and a long thin polypus, which during speaking was concealed beneath the vocal cords, but during coughing protruded between them. Both patients suffered from phthisis pulmonalis.

There is another species of laryngeal tuberculosis which Dr. Ariza calls the "hypertrophic," as distinguished from the "polypous." In this form the enlargements are diffuse, cover a considerable space, and are lost gradually in the neighbouring parts. The usual seats of this affection are, the mucous and submucous tissue of the ventricular bands, and inter-arytenoid space: its colour is deep red, with some whitish spots.

Tubercular polypi are characterised, according to Ariza, by—

(1) Greyish spots, indicative of epithelial destruction.

(2) The facility with which they ulcerate, on the slightest traumatic or caustic action.

(3) Their softness and yielding nature.

(4) Being generally single.

[Tuberculosis of the larynx is so often destructive in its action, after the stage of œdema and infiltration has passed, that one is apt to picture to oneself the turban-like epiglottis, the large pyriform swellings of the arytenoids and ary-epiglottic folds during the stage of infiltration; and the ulcers of the epiglottis, arytenoids and vocal cords, in the stage of breaking

down, as being the only pathological appearances revealed by the laryngoscope. I regard it, therefore, as of no small value, that we should be reminded that there are outgrowths in chronic phthisis laryngea as well as in chronic laryngitis and tertiary syphilis; and all who have had much experience of laryngoscopy will agree with me, that it is sometimes a matter of considerable difficulty to say whether we have to do with a primary phthisis of the larynx, or with some syphilitic affection of the organ, supposing the possibility of syphilis to be denied.]

Intubation of the Larynx.—R. Norris Wolfenden, *Journal of Laryngology and Rhinology*, Jan., 1887. The author describes the set of instruments used in this operation as consisting of a gag, five laryngeal tubes, an applicator, extractor, and a gauge. The tubes range from $1\frac{3}{4}$ in. to $2\frac{1}{2}$ in., the calibre being $\frac{1}{8}$ in. to $\frac{1}{4}$ in. in the largest, and not more than half this in the smallest. Silk thread is passed through an eye in the upper end of the tube. Jointed obturators hold them during introduction, and into their upper extremity is screwed the applicator. A sliding tube fits on to the stem and covers it, so that on pushing it forward with the thumb, the obturator is released and can be withdrawn, and the tube left in position. The tube is extracted by putting the extractor into it closed, opening the blades of which it is composed, and withdrawing it and the tube.

The operation is thus performed:

The patient faces the operator; the head and arms are held by an assistant, and the mouth is kept open by the gag. The left index finger, passed across the base of the tongue, hooks up the epiglottis, and serves to guide the tube into the larynx. The handle of the applicator is held towards the sternum until the pharyngeal wall is reached; the point is then directed downwards and forwards along the inner edge of the index finger, the handle being carried high, and the tube directed well forwards to avoid passing it into the œsophagus. Ten to twenty seconds are said to be sufficient for this part of the operation, a characteristic cough showing that the tube is in the larynx, easy respiration being established when the obturator is withdrawn. Now cut one end of the silk thread; pass one finger behind the epiglottis, and hold the tube while the thread is removed. If the tube be stopped by secretions, it must be withdrawn. The withdrawal is said not to be easy: pressure of the larynx backwards and upwards with the left thumb facilitates it; but an anæsthetic may be necessary.

It has been used almost entirely in cases of diphtheria and croup, and Dr. Cheatham (*American Practitioner and News*, Nov. 13th, 1886) gives statistics of 95 cases, of which 28 recovered, or 29·47 per cent. Tracheotomised cases averaged 18·95 per cent. of recoveries. Dr. Wakham has had 29 recoveries in 96 cases, or 30.2 per cent.

Dr. Strong has performed it successfully in a case of acute catarrhal laryngitis.

BARCLAY J. BARON, M.B.

"Tubage" as a Substitute for Tracheotomy.—After describing the mode of introducing the tube, the author points out that Professor Stoerk, of Vienna, has shown that the tube rests on the true, and not on the false, vocal cords, as O'Dwyer imagined. The objections to its use are:

(1) Difficulty of introduction in some cases: in several instances the tube has passed into the œsophagus.

(2) Troublesome cough with rejection of the tube, in many cases again and again. O'Dwyer attributes this to small size of the tube employed; but however this may be, it would seem to preclude "tubage" without risk, unless the patient could be under the constant surveillance of the medical attendant.

(3) When the tube is of sufficient size, it produces small ulcers in its neighbourhood.

(4) In several cases it has been swallowed, and found in the stomach at the autopsy.

(5) So far as statistics go, at present the number of recoveries is from 27 to 28 per cent. in cases where intubation of the larynx, and from 19 to 25 per cent. where tracheotomy, was performed.—*Le Progrès médical*, April 20th, 1887.

J. MICHELL CLARKE, M.B.

THERAPEUTICS.

Treatment of Dilatation of Stomach.—M. Mathieu describes the mode of treatment that he has found most successful in this disorder. Dilatation of the stomach is not a disease, but a symptom arising in different classes of cases arranged under the following heads:

(1) Dilatation following organic disease and contraction of pylorus.

(2) Dilatation from degeneration of the gastric muscular fibre.

(3) Dilatation in debilitated persons, more marked in the stomach than in any other part of the alimentary canal,

because of the large size of the stomach, and of its supporting the whole mass of food at each meal.

(4) Dilatation from atony of muscle in neurasthenia, alternating at first with other symptoms, but finally predominating over and persisting beyond these.

In the first two varieties there is obviously no cure; relief may be afforded by breaking up the food as much as possible, and taking very small quantities at a time.

Under (3) and (4) the indications for treatment are:

(1) To avoid overloading the stomach; if the stomach receives suddenly a large amount of food, the mere weight of this will exert considerable traction on its walls.

The total quantity of food taken is to be reduced: if this cannot be done, the meals must be diminished in size and increased in frequency; at the same time, the food must be thoroughly masticated. No vegetables or green fruits of any kind, except a little potato. Light (foreign) beers are advantageous; it is better to forego wine, and no alcoholic drink is to be taken except at meal-times.

M. See recommends, when there is pain, the use of hot drinks—weak hot tea in the mornings, and hot water with a very small amount of spirits, if desired, at night. No cold or iced drinks should be taken.

(2) To secure a regular evacuation of the bowels, since constipation is present in most of these patients, a powder composed of equal parts of magnesia, cream of tartar, and precipitated sulphur, is recommended; a teaspoonful in coffee, three times a day before meals. The patient will soon find out the right dose for himself. Another very good plan is a small enema of cold water each morning, with two or three teaspoonfuls of glycerine by the mouth.

(3) To promote general well-being, the author thinks that the cold douche or shower-bath is most efficacious.

(4) To restore the normal muscular tone to the stomach, he considers that ipecacuanha is the best remedy, given in the form of 1 to 2 grains in powder, in capsule, every morning. Smaller doses may be used for susceptible persons. Reduction of the stomach area of resonance, under the influence of ipecacuanha, is the most important element in the prognosis: he thinks that this remedy causes a contraction of the muscle fibres, comparable to the contraction of the heart-muscle from digitalis. Should the dilatation of the stomach still remain the same after the above treatment has been persevered with some little time, the inference may be drawn that the muscle is degenerated.

(5) To relieve pain, hot fluids are useful; and chloroform water or cocain, gr. $\frac{3}{4}$ to $1\frac{1}{2}$.—*Le Progrès médical*, Feb. 12th, 1887.

On the Treatment of Neuralgias.—The special action of aconitine is to lower or suppress the functions of the sensory nerves; while at the same time it produces anæsthesia, diminishes the calibre of the capillaries, and lowers the temperature. It is especially efficacious in facial neuralgias—above all, in those attended with congestion; and in some other so-called rheumatic neuralgias, from cold. It is generally useful in catarrhal affections, and can be administered in very small doses at convenient intervals.

Aconitine is useful in other diseases besides neuralgia: it has given excellent results in hemicrania, migraine, pleurodynia, and in rheumatic pains in the joints.

Its action is certain and exact; but on account of its potency, it is necessary to give it in small doses at considerable intervals: one must also be sure that the preparation is a good one, and constant in strength.

Neuralgia has often a marked periodicity: to combat this complication, Dr. Moussette, of Paris, has composed pills, each exactly containing $\frac{3}{1000}$ grain aconitine, combined with quinine. Until the susceptibility of the patient is known, it is as well to give one pill at morning, mid-day, and evening, for the first day. If there is no marked effect from this, the dose is gradually increased by one pill daily, until six are taken in the twenty-four hours: these may be continued until relief from pain is obtained; but it is as well not to go beyond this quantity, unless in exceptional cases at any rate. If any diarrhœa comes on, the dose is to be diminished.

In the Paris hospitals the administration of aconitine in this way has given very satisfactory results.—*Le Progrès médical*, Feb. 12th, 1887.

On some Therapeutical Applications of Chloral.—Grave inconveniences and even danger result from the administration of opium and its derivatives to patients suffering from albuminuria; at the same time, there is often insomnia, teasing cough from pulmonary œdema, and severe renal or sciatic pains, that demand the use of a sedative or narcotic. A case is here quoted of a woman who suffered from albuminuria during an attack of erysipelas following amputation of the breast for scirrhus. She suffered from most intense sciatica, and a troublesome cough that prevented sleep. It could not be determined whether the albuminuria was of old standing. She took 15 grains of chloral hydrate, and passed

a good night. After this she took 30 to 45 grains daily, for several months, without interruption. She recovered from the effects of the operation and the erysipelas. When seen three years after, there was no return of the cancer; and the albumen which for one year had been present in the urine in the large amount of 10 grammes per litre, now oscillated between 2 and 3 grammes per litre. She still took the chloral from time to time when the sciatica returned, but her general health had much improved. This case goes to show that chloral may be given without fear of accumulation to albuminuric patients for long periods.

The author then quotes two cases of Dr. Wilson's from the *British Medical Journal*, where chloral, at first given for its narcotic effect, produced first amelioration, and finally cure of the albuminuria. In renal eclampsia chloral is undoubtedly efficacious.

In whooping-cough it is claimed that chloral gives better results than any other drug, both in shortening the course and lessening the severity of the disease. In children, from the age of 5 years and upwards, 5 to 6 grains may be given at intervals of eight hours. For younger children a dose of 3 grains is enough; milk disguises the taste very well. It should never, of course, be prescribed if bronchitis or bronchopneumonia be present.

In chorea, excellent effects result from the administration of 15 to 22 grains daily to children below five years of age, and of 30 to 37 grains to older ones; stopping short at a small degree of the physiological effect of the remedy, so as to allow the child to be awake part of the day.—*Le Progrès médical*, March 20th, 1887.

J. Michell Clarke, M.B.

Cocaine in Whooping-cough.—L. E. Hall (*New York Medical Journal*, Oct., 1886) comes to the following conclusions:

(1) It must be used with great care in young children.

(2) The spray is not to be recommended, as the quantity administered is uncertain.

(3) No solution stronger than 4 per cent. ought to be administered to children less than two years old.

(4) It never is of any great value.

(5) Chloral controls the symptoms set up by its use.

A. P. Garnett (*Journal of the American Medical Association*, Oct., 1886) uses a 6 per cent. solution of cocaine in chloroform, and allows a child to inhale 10 minims of the solution from a wine-glass made warm by tepid water, the nostrils being kept

closed. The dose to be repeated every four hours. It relieves paroxysms, but does not cut short the disease.

BARCLAY J. BARON, M.B.

Scraping in Surgery.—Mr. Pridgin Teale strongly advocates the use of the sharp spoon, originally introduced by Volkmann, and improved by Sir Joseph Lister. Mr. Teale recommends scraping for indolent sores and sinuses leading to extensive cavities, after laying open the latter. In cases of scrofulous glands there is a wide field for the scraper, not only for dealing with sinuses and suppurating cavities, but for scooping out and eradicating damaged and caseating glands. It is useful also in cases of lupus and lupoid sores. In buboes and carbuncles, after incising the affected parts, Mr. Teale employs the scraper freely; in the case of carbuncle, the treatment should be supplemented by numerous small incisions into the neighbouring œdematous and inflamed skin. After removing all decayed tissues, the parts should be well soaked with some antiseptic lotion, and dressed with antiseptic materials. In ophthalmic surgery, the use of a fine scraper in cases of tinea tarsi and ulcers of the cornea is gradually becoming a recognised procedure.—*Liverpool Medico-Chirurgical Journal*, January, 1887.

Treatment of Fissure of the Anus.—Dr. F. Mendel *(Deutsche Med-Zeitung)* reports the successful treatment of a number of cases of very painful fissure of the anus with nitrate of silver and ointment. The treatment is begun with a thorough application of nitrate of silver, which is rendered in a measure painless by the use of a solution of cocaine. He next makes an application of an ointment composed of boric acid 2 parts, cocaine 1 part, lanolin 20 parts. This is to be applied several times a day with the finger, and kept in place with a small sponge.—*American Practitioner and News*, April 2nd, 1887.

W. J. PENNY.

SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

What's in a Name?—In Boston they do not say stomach-ache, but "gastric neuralgia." But it gets there all the same.—*Life* quoted in *The Medical Record* (New York).

Haunted.—The Parisian journalist keeps up the tradition of satirising the professors of the art of healing. Here is his most recent effort. "Do you believe, doctor, in ghosts?"—the question is asked during a conversation on spiritualism. "My dear sir," is the reply, "how can you ask me such a question? If I believed in ghosts, I should give up my profession."

A Medical Epitaph.—T. C. M., in *The Cincinnati Lancet and Clinic*, says that one of the most charming epitaphs written on doctors is that over the grave of Charles de l'Ecluse (also known as Carolus Clusius), the talented medical botanist, who died in 1609:

"Qui videt hos flores tumuli de vertice nasci,
Hæc cineri tellus ultima dona dedit.
O bene, quod tumulo claudatur Clusius isto!
Qui coluit flores, floribus ille jacet."

Scotch Candour.—There was a bad epidemic of typhus in Glasgow when Dr. Norman Macleod was at the Barony Kirk. The wife of an old man who was down with it became very anxious about him, and sent for a minister to see him. The minister, after his interview, said to the old lady, "Haven't you been in the habit of attending a place of worship?" "Ow ay! we gang tae the Barony Kirk." "Then why did you not send for Dr. Macleod instead of for me?" "Man! dae ye think we wud sen' for sae guid a man as that? Dinna ye ken it 's a bad case o' typhus?"

A Hint for Hospitals.—In an article in *The Hospital* on "The Registration Fee System," Lord Leigh says that at the Queen's Hospital, in Birmingham, the system is worked thus: The patients attend between 9 and 11 a.m. If the registrar is satisfied that the applicant is in a position to pay a fee of one shilling, then the fee has to be paid; but if from any cause he is unable, the fee is remitted. In 1885 the receipts from this source were £852 17s., nearly double those of 1876, when the plan was introduced. Lord Leigh recommends the general adoption of the plan.

The Peculiar People.—In reference to the views of these persons about medical attendance, Max O'Rell says, "I do not know there is anything very extraordinary in this belief for such a free and free-trading people as the English. A medical student, who cannot obtain his diploma by examination in England, has only to go to Scotland to obtain one without difficulty, or to America to buy one. There are plenty of people ready to trust their friends in his hands. This being so, it is not very wonderful that there should be others to be found who prefer trusting to Providence."

At the Seaside.—The head of a family looking for lodgings applied at a house, the appearance of which he liked. The landlady stated the number of rooms she had to let, which exactly suited him. He said he should like to see them. The landlady replied that she was very sorry she couldn't show them just then, as the other gentleman hadn't left; but if he would call in the evening he could see them. Fortunately, in the afternoon he discovered that "the other gentleman" was the dead body of the last lodger, who had died there from scarlet fever, and who was to be buried that day.

Genius.—In a recent discussion between a number of European psychologists, concerning the conditions which produce genius, it was maintained that it is a neurosis; and history was made to furnish numerous instances in which its appearance bore a very close relation to other distinct nervous diseases. Cæsar, Peter the Great, Napoleon, and Charles V. were epileptics; Newton's nervous system was disordered; Pascal had hallucinations; and Luther threw an ink-bottle at the Devil; Byron's parents were afflicted with ungovernable tempers; and William the Conqueror was a son of Robert the Devil. Another singular fact, brought out in discussion, is that geniuses are, as a rule, sterile. Thus, Dante, Michel Angelo, Raphael, Shakespeare, Cowper, Wordsworth, Byron, Scott, and De Quincey, either left no posterity or families which soon became extinct.—*The Medical Age.*

Deciding on a Disease by Ballot.—We were about three miles from Natchez, when we heard a great shouting and wailing in a negro's cabin by the roadside, and it was decided to dismount and go in. It was a tumble-down structure with but a single room, and into this were crowded sixteen or eighteen coloured people, mostly of the female sex. On a heap of straw on the clay floor was a sick woman. She was rolling her eyes and writhing as if suffering great pain. When asked what ailed her, an old white-haired negro, who was called "doctor" by the others, replied: "Dat 's jist what we doan' agree on. Some says it 's de bilyus colic, an' some says it 's de gallopin' consumpshun." "Why, man, something ought to be done for her right away!" "'Zactly, sah, 'zactly; an' Ize de doctah dat would like to take right hold ob the case." "But why don't you?" "'Kase Ize boxed up, sah. I nebber gin the same medicine fur gallopin' consumshon' dat I do for bilyus colic, an' until we kin decide on de ailment I doan' dare go ahead." We were on our horses and ready to move off when the old man came out with a happier look on his face, and said: "Gem'len, we has sorter took a vote on it, an' we has declar'd it rheumatism by one majority. Ize gwine right at it to heat the bricks an' gin her an all-night sweat."—*Pacific Medical and Surgical Journal.*

Pathological Difficulties.—The worst part of the hospital discipline at St. Bartholomew's about 1820 was the regulation—or rather non-regulation—of the pathological dissections. We had vast opportunities for following that branch of professional study; for many cases of organic disease were admitted in their advanced stages. Mr. Stanley, the anatomical demonstrator, was an ardent pathologist; and leave from the relatives of the deceased person was not, as in Edinburgh, a necessary condition. There was, therefore, usually a race between the relatives and the students—the former to carry off the body intact, the latter to dissect it. Thus dissection was apt to be performed with indecent—sometimes with dangerous—haste. It was no uncommon occurrence that, when the operator proceeded with his work, the body was sensibly warm, the limbs not yet rigid, the blood in the great vessels fluid and coagulable. I remember an occasion when Cullen commenced the dissection of a man who had died suddenly one hour before, and when fluid blood gushed in abundance from the first incision through the skin, made in drawing his knife from the upper to the lower end of the sternum in the usual manner. Instantly I seized his wrist in great alarm, and arrested his progress; nor was I easily persuaded to let him go on, when I saw the blood coagulate on the table exactly like living blood. At the hospital of La Charité, in Paris, a day seldom passed without at least one pathological inspection. I remember, nevertheless, having once met with a disappointment on three successive mornings. On the third I encountered at the door of the pathological rooms the following apostrophe from the "Gardien": "Encore, monsieur, point d'autopsie! Il y a depuis ces trois jours une épidémie de santé dans l'hôpital!"—*The Life of Sir Robert Christison.*